

**U.S. Department of Education**  
**Washington, D.C. 20202-5335**



**APPLICATION FOR GRANTS**  
**UNDER THE**

**Preschool Pay For Success Feasibility Pilot Grant**

**CFDA # 84.419C**

**PR/Award # S419C170009**

**Grants.gov Tracking#: GRANT12263370**

OMB No. 1810-0728, Expiration Date: 08/31/2019

Closing Date: Oct 06, 2016

**U.S. DEPARTMENT OF EDUCATION  
BUDGET INFORMATION  
NON-CONSTRUCTION PROGRAMS**

OMB Number: 1894-0008  
Expiration Date: 06/30/2017

Name of Institution/Organization

Minnesota Department of Education

Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.

**SECTION A - BUDGET SUMMARY  
U.S. DEPARTMENT OF EDUCATION FUNDS**

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Project Year 5 (e)	Total (f)
1. Personnel						
2. Fringe Benefits						
3. Travel						
4. Equipment						
5. Supplies						
6. Contractual						
7. Construction						
8. Other						
9. Total Direct Costs (lines 1-8)						
10. Indirect Costs*						
11. Training Stipends						
12. Total Costs (lines 9-11)						

**\*Indirect Cost Information (To Be Completed by Your Business Office):**

If you are requesting reimbursement for indirect costs on line 10, please answer the following questions:

(1) Do you have an Indirect Cost Rate Agreement approved by the Federal government? ☒ Yes ☐ No

(2) If yes, please provide the following information:

Period Covered by the Indirect Cost Rate Agreement: From: 07/01/2016 To: 06/30/2017 (mm/dd/yyyy)

Approving Federal agency: ☒ ED ☐ Other (please specify):

The Indirect Cost Rate is %.

(3) If this is your first Federal grant, and you do not have an approved indirect cost rate agreement, are not a State, Local government or Indian Tribe, and are not funded under a training rate program or a restricted rate program, do you want to use the de minimis rate of 10% of MTDC? ☐ Yes ☐ No If yes, you must comply with the requirements of 2 CFR § 200.414(f).

(4) If you do not have an approved indirect cost rate agreement, do you want to use the temporary rate of 10% of budgeted salaries and wages?

☐ Yes ☐ No If yes, you must submit a proposed indirect cost rate agreement within 90 days after the date your grant is awarded, as required by 34 CFR § 75.560.

(5) For Restricted Rate Programs (check one) – Are you using a restricted indirect cost rate that:

☐ Is included in your approved Indirect Cost Rate Agreement? Or, ☐ Complies with 34 CFR 76.564(c)(2)? The Restricted Indirect Cost Rate is %.

PR/Award # S419C170009

Name of Institution/Organization Minnesota Department of Education	Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.	
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**SECTION B - BUDGET SUMMARY**  
**NON-FEDERAL FUNDS**

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Project Year 5 (e)	Total (f)
1. Personnel						
2. Fringe Benefits						
3. Travel						
4. Equipment						
5. Supplies						
6. Contractual						
7. Construction						
8. Other						
9. Total Direct Costs (lines 1-8)						
10. Indirect Costs						
11. Training Stipends						
12. Total Costs (lines 9-11)						

**SECTION C - BUDGET NARRATIVE (see instructions)**

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## Pay for Success Feasibility Pilot: Pyramid Model Expansion

The Minnesota Department of Education (MDE) is pleased to submit this proposal to conduct a Preschool Pay for Success (PFS) Feasibility Pilot study. Minnesota has a strong history of early childhood systems building at the state and local levels. Reflected in that history is a long-standing commitment to implementing and sustaining early childhood programs that promote the learning and development of all Minnesota's young children, with a focus on high-needs children and their families. To address the continued need to serve low-income and high-needs children, in 2016 Minnesota launched a voluntary prekindergarten program (VPK) in 74 districts and charter schools across the state. This annual investment establishes a high-quality early learning opportunity for more than 3,300 children. The current VPK statute (2016) has numerous program requirements, many based on federal recommendations, intended to ensure programs are of high quality. Furthermore, VPK has its own set of program quality standards, such as play-based learning instruction, coordinating appropriate transition to kindergarten, and involving parents and families in program planning. Although VPK includes professional development, it does not have a specific evidence-based model to address social-emotional development, nor is funding sufficient to provide the ongoing coaching needed to help teachers implement evidence-based practices. Therefore, the MDE is interested in finding new ways to support VPK teachers in providing evidence based practices that support children's social and emotional development.

MDE will address the **Absolute Priority Feasibility Study** and the **Competitive Preference Priority to evaluate social and emotional outcome measures**. This proposal describes the need for the PFS feasibility study, the preschool program design (including VPK and an enhanced VPK program featuring an evidence-based model to address social-emotional development), the plan for developing the preschool PFS partnership, the work plan, project personnel, and available resources and proposed budget for the PFS feasibility pilot study.

### A. Need for Project

#### Statement of Need

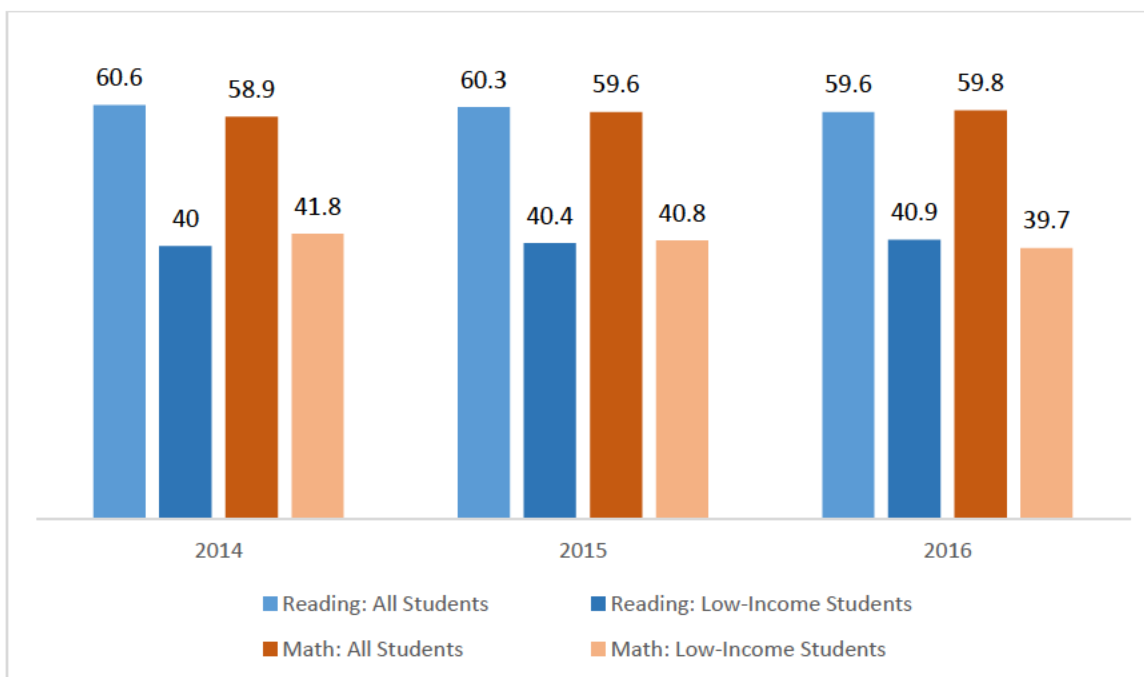
Minnesota continues to face challenges in supporting high academic achievement for all its children, particularly those with high needs. In 2015, more than one in 10 children (13%) experienced poverty. The poverty rate was even higher for the state's youngest children. In 2015, 14.3% of children under age 6 were living in poverty; 6% were living in extreme poverty (U.S. Census Bureau, 2015). Recent studies provide evidence that children living in poverty are more likely to start school with lower levels of school readiness (U.S. Department of Education Office for Civil Rights, 2014; Ursache, Blair, & Raver, 2012).

Minnesota also has one of the largest achievement gaps in the United States and continues to see disparities in reading and math proficiency (Matos, 2016; Minnesota Education Equity Partnership, 2016). Research has shown that the gap in academic skills such as language and early math between poor children and their peers is evident by kindergarten and stays stable as children progress through school (Reardon, 2013). One reason for this finding may be a lack of access to high-quality services before kindergarten entry that help children achieve positive outcomes and narrow the achievement gap. Whereas Minnesota has a population of 139,701 3- and 4- year olds, less than 10% of children were served in public preschool programs, and less

than half (48%) of all 3- and 4-year-olds in Minnesota attended any preschool program in 2015 (Education Week Research Center, 2015).

Data published by MDE from the past several years document the state's income-based achievement gap (Exhibit 1).

**Exhibit 1. Percentage of all students and students in poverty across all grade levels who met state standards in reading and math, 2014 through 2016**



Source: Minnesota Department of Education, unpublished

Intervening effectively during the early childhood years, particularly for social and emotional outcomes, is critical given the importance of social-emotional learning as a foundation for children's learning in other areas (Blair, 2002; Diamond & Lee, 2011). Children who develop social and emotional skills such as self-management, maintaining positive relationship, and using critical thinking tend to be more engaged in instructional activities and transition more smoothly to kindergarten and beyond (Eisenberg, Valiente, & Eggum, 2010; Fantuzzo et al., 2007; Zins & Elias, 2006).

Conversely, additional studies provide evidence that lower levels of behavioral and social skill are highly correlated with poor academic achievement and later behavior problems, are more common in children from low-income and racial minority families, and result in harsher discipline in school and more frequent suspensions and expulsions from school (Campbell, Shaw, & Gilliom, 2000; Gregory, Skiba, & Noguera, 2010). Data from the Office of Civil Rights show that preschool children are being suspended and expelled at an alarmingly high rate and that African-American children are being suspended in preschool at higher rates than any of their peer groups (U.S. Department of Education Office for Civil Rights, 2014). In preschool, expulsion and suspension stemming from behavior problems have been found to predict expulsion and suspension in later school grades, setting the child on a negative academic trajectory (Raffaele Mendez & Knoff, 2003). Children who are expelled or suspended are 10

times more likely to drop out of high school, experience academic failure and grade retention, hold negative school attitudes, and face incarceration than those who are not (American Psychological Association Zero Tolerance Task Force, 2008; Petras, Masyn, Buckley, Ialongo, & Kellam, 2011). Expulsion and suspension practices may also delay or interfere with the process of identifying and addressing underlying issues, which may include disabilities or mental health issues. Further, suspensions and expulsions may result in children's not having access to early learning programs that support their cognitive and social-emotional development. The U.S. Departments of Health and Human Services and Education have prioritized this issue, as indicated by the recent release of a joint policy statement with recommendations for early education programs (<https://www2.ed.gov/policy/gen/guid/school-discipline/policy-statement-ece-expulsions-suspensions.pdf>).

Poor academic and social outcomes not only affect children and their families, but also have negative impacts on the other children in the classroom (Fletcher, 2010; Fletcher, 2009). Recent research found that classmates of children with emotional and behavioral disorders were more likely to have lower levels of achievement and non-cognitive skills compared to classmates in inclusive settings who were not exposed to symptoms of emotional and behavioral disorders (Fletcher, 2010; Fletcher, 2009; Gottfried & Harven, 2015; Neidell & Waldfogel, 2010). Key findings from these studies included lower math and reading scores in early elementary grades for all students in the classroom, and decreased social skills for classmates as measured by teacher rating scales. These negative results may require schools and communities to spend more funds for retention in grade level, special education services, unemployment, and incarceration.

In response to research demonstrating the importance of high-quality preschool to later academic achievement, the Minnesota legislature recently approved \$26 million in state funding for a voluntary pre-K (VPK) program that was launched in fall 2016. Seventy-four school districts across the state were awarded funding to establish VPK sites, which will allow more than 3,300 children to attend preschool free of charge (provided by Minnesota Department of Education, 2016). The funding targets school districts that serve low-income students in areas where these students would otherwise be unable to attend high-quality preschool. Minnesota's VPK sites is designed to address children's academic and social skills in the year before kindergarten by providing play-based learning, comprehensive family services, developmentally appropriate curriculum and assessment, small classes, and well-trained teachers (see Section B). However, VPK programming, as designed, may not be enough to address the gaps noted above. Although we know that high-quality preschool programs can have positive and lasting effects on children's development and learning across domains, we also know that program administrators and teachers need more supports related to social, emotional, learning, and mental health and behavioral issues in young children (Institute of Medicine and National Research Council, 2015). Children experiencing poverty need support to develop the social, emotional, and behavioral outcomes that underpin academic success, and teachers need additional training to foster high-needs children's development in these and all other domains.

We propose a feasibility study of a PFS funding approach to support implementation of the Pyramid Model as a quality enhancement in a subset of Minnesota's VPK classrooms. The Pyramid Model is an evidence-based approach that teachers learn and use to manage challenging behavior in their preschool classrooms. The model addresses the need of program administrators and teachers for better supports for young children's social-emotional skills and executive functioning that can in turn reduce incidences of challenging behavior and free teachers' time

and attention for high-quality instruction. Our approach is built on the assumption that teachers' use of evidence-based practices supportive of children's social and emotional development improves child outcomes.

### Target Population

The target population for the proposed PFS feasibility study will be children who are enrolled in a sample of state-funded VPK sites. In the districts selected for VPK funds, an average of 74.6% of students were eligible for free and reduced-price lunch, with a range of 28% to 100% eligible. Enrollment data for 2016 show a significant proportion of minority students enrolled in preschool and kindergarten in VPK sites, with 56% reported as nonwhite (22% Black, 19% Hispanic, 8% Asian/Pacific Islander, 7% American Indian). In the same classroom with 4-year-olds formally funded through VPK will be 3- and 4-year-olds with disabilities funded with state Early Childhood Special Education resources and 3- and 4-year-olds supported by Title 1, parent tuition, or other state preschool funds.

Within the pool of VPK pre-K sites, this PFS feasibility study will focus on a subset with the highest proportions of high-needs children (75% or more free and reduced-price lunch eligible); a sample of those sites would be selected to implement the Pyramid Model should a PFS approach be determined to be feasible and subsequently implemented through a PFS deal.

### Magnitude of Need of Target Population

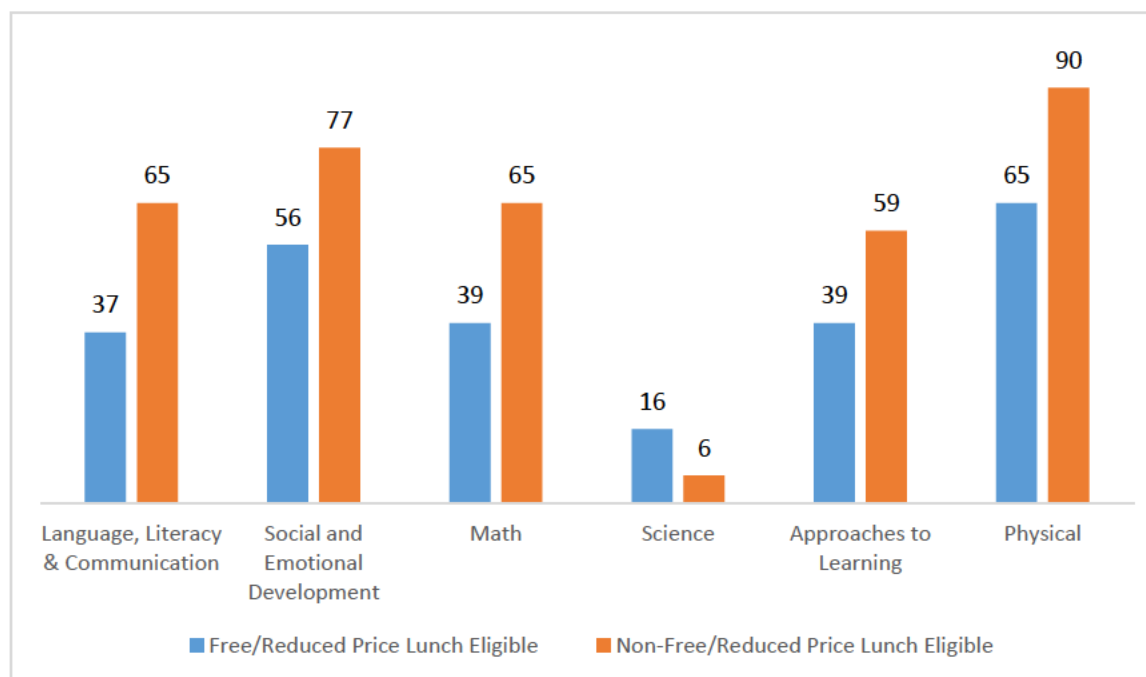
Minnesota has been collecting data for many years documenting the needs of some of its incoming kindergarteners. The School Readiness Study, conducted since 2003, reports the percentage of incoming kindergarten students who are proficient across multiple domains of learning on the Work Sampling System (Meisels, Marsden, Jablon, & Dichtelmiller, 2016). In 2012, about 40% of children were not proficient in Personal and Social Development domain in the Work Sampling System (Minnesota Department of Education, 2013). Exhibit 2 shows historic results from this study.

**Exhibit 2. Results from Minnesota's School Readiness Study, 2010–2012**

Domain/Result	Incoming Kindergarteners' Proficiency (%)		
	2010	2011	2012
Physical Development	70	69	73
The Arts	56	58	62
Personal & Social Development	56	56	60
Language & Literacy	59	54	60
Mathematical Thinking	52	51	58

In 2015, MDE finalized the revised the School Readiness Study to better align with Minnesota's Early Learning Standards. Disaggregated by income, the 2015 data showed that students who were eligible for free and reduced-price lunch fared much worse than more affluent students (see Exhibit 3).



**Exhibit 3. Minnesota's 2015 Kindergarten Entry Profile Proficiency Results, by Income****B. Preschool Program Design**

MDE is proposing to study the feasibility of using PFS to support enhancing the quality of a subset of VPK sites through the implementation of the Pyramid Model. The characteristics of the VPK program and the characteristics of the enhancement, the Pyramid model, are both described in this section. Also described are the goals, objectives, and outcomes for the enhanced VPK program.

**Voluntary Preschool Program**

In 2016, Governor Dayton and the Minnesota Legislature allocated funding for districts, charter schools with recognized early learning programs, or a combination thereof to establish a voluntary prekindergarten program designed to prepare children for success when they enter kindergarten. The authorizing statute required that funds be proportionately allocated to applicant sites as follows: Minneapolis and St. Paul Public Schools (10%), metropolitan suburban districts (40%), nonmetropolitan school districts (43%), and charter schools (7%). For MDE to determine how to allocate funds, it asked districts to submit applications. More than 200 districts applied to participate, and MDE selected sites on the basis of the district's concentration of enrolled kindergarteners eligible for free and reduced-price lunch on October 1, 2015 as well as the availability of other high quality preschool options in the geographic area. Sites with the highest concentrations of poverty within each strata were prioritized. A second selection criterion was the presence or absence of a Parent Aware quality rated site in the district i.e., high-quality in Minnesota's preschool quality rating system). Sites funded with the initial dollars had an average of 75% of kindergarteners eligible for free and reduced-price lunch.

VPK represents a \$26 million annual investment in a high-quality early learning opportunity for more than 3,300 children across 74 independent school districts and charter schools in its first year.

The goals of the new VPK program are to

- Increase access to high-quality early learning programming for 4-year-olds, regardless of their ability to pay.
- Reduce educational achievement gaps.
- Help ensure every child is ready to succeed in school and life.

The VPK statute includes numerous requirements intended to ensure that the local programs are of high quality. VPK programs are required to

- Provide instruction through play-based learning to foster children's social and emotional development, cognitive development, physical and motor development, and language and literacy skills, including the native language and literacy skills of English learners, to the extent practicable.
- Measure each child's cognitive and social skills using a formative measure aligned with the state's early learning standards when the child enters and again before the child leaves the program, using screening and progress monitoring measures and others from the state-approved menu of kindergarten entry profile measures.
- Provide comprehensive program content including the implementation of curriculum, assessment, and instructional strategies aligned with the state early learning standards and kindergarten through grade 3 academic standards.
- Provide instructional content and activities that are of sufficient length and intensity to address learning needs, including offering a program with at least 350 hours of instruction per school year for a prekindergarten student.
- Provide VPK instructional staff salaries comparable to the salaries of local kindergarten through grade 12 instructional staff.
- Coordinate appropriate kindergarten transition with families, community-based prekindergarten programs, and school district kindergarten programs.
- Involve parents in program planning and transition planning by implementing parent engagement strategies that include culturally and linguistically responsive activities in pre-K through third grade that are aligned with early childhood family education under section 124D.13.
- Coordinate with relevant community-based services, including health and social service agencies, to ensure children have access to comprehensive services.
- Coordinate with all relevant school district programs and services including early childhood special education and those that serve English language learners and students experiencing homelessness.
- Ensure staff-to-child ratios of 1-to-10 and a maximum group size of 20 children.
- Provide high-quality coordinated professional development, training, and coaching for both school district and community-based early learning providers that is informed by a measure of adult-child interactions and enables teachers to be highly knowledgeable in early childhood curriculum content, assessment, native and English language development programs and instruction.
- Implement strategies that support the alignment of professional development, instruction, assessments, and pre-K through grade 3 curricula.

- A VPK program must have teachers knowledgeable in early childhood curriculum content, assessment, native and English language programs, and instruction.
- Districts and charter schools must include their strategy for implementing and measuring the impact of their voluntary pre-K program under section 120B.11 and provide results in their World's Best Workforce annual summary to the commissioner of education.

This list of requirements is consistent with research and recommended practice on high-quality programming for young children. It is reasonable to expect, as the governor and legislators did through enacting it, that children who participate in the VPK program will achieve improved outcomes as 4-year-olds and later in their school careers. It also is likely that without specific training and interventions to address social and emotional learning, teachers in the VPK sites will struggle with how to support this domain in general and especially how to support children with challenging behavior. The recent volume on the early childhood workforce from the Institute of Medicine and results from a survey of higher education teacher education programs indicate that teachers feel unprepared to effectively address children's challenging behavior (Hemmeter, Santos, & Ostrosky, 2008; Institute of Medicine and National Research Council, 2015). The working hypothesis to be explored through PFS is that the provision of additional professional development for teachers and administrators in the Pyramid Model will result in improved outcomes in the social-emotional and academic domains for students who receive the enhanced VPK compared with students receiving regular VPK. Although VPK includes professional development, it does not have a specific evidence-based model to address social-emotional development, nor is funding sufficient to provide the intensity of coaching required to achieve fidelity of implementation of the Pyramid Model practices.

## The Pyramid Model

### *Description*

The Pyramid Model for Supporting Social Emotional Competence in Infants and Young Children (<http://www.pyramidmodel.org>) is a well-researched and validated positive behavior and support framework for early educators to promote young children's social and emotional development as well as to address challenging behavior. The Pyramid Model, an application of Response to Intervention (RtI) to social-emotional development in preschool settings, organizes evidence-based practices based on the public health model of promotion, prevention, and intervention. Similar to public health models, it identifies the need for universal promotion practices for all children, secondary interventions (i.e., practices for children who need targeted social-emotional supports), and tertiary interventions (i.e., individualized behavior supports for children with significant social difficulties or persistent challenging behavior) (Exhibit 4). The Pyramid Model approach is applicable to all young children—typically developing children, children with developmental delays and disabilities, children with or at risk of challenging behavior, and children with behavior disorders. The model has been used in both general and special education preschool classrooms, Head Start classrooms, and child care center classrooms.

**Exhibit 4. Pyramid Model Developed by Center on Social Emotional Foundations for Early Learning (CSEFEL)**



The Pyramid Model was initially developed with funding from the U.S. Department of Education, Office of Special Education Programs (OSEP), and refined through numerous efficacy trials with funds from the Institute for Education Sciences (IES) (Hemmeter, Fox, & Snyder, 2013; Hemmeter, Snyder, Fox, & Algina, 2011). Ample evidence indicates that the use of RtI models like the Pyramid Model improve the academic performance of at-risk students in early reading and executive functioning measures such as attention to task and task completion (Buysse & Peisner-Feinberg, 2009; Kovaleski, Gickling, Morrow, & Swank, 1999; O'Connor, Harty, & Fulmer, 2005; Vaughn, Linan-Thompson, & Hickman, 2003). At a system level, students in programs using RtI models were shown to have reduced rates of special education referral or placement (Bollman, Silbergliitt, & Gibbons, 2007; Marston, Muyskens, Lau, & Canter, 2003). In a randomized study conducted in Nashville and Tampa Bay, children in classrooms where the Pyramid Model had been implemented demonstrated significant improvements in social skills and decreases in challenging behaviors (Fox & Hemmeter, 2014; Hemmeter et al., 2013; Hemmeter et al., 2011).

The professional development has three primary components: (1) a cohesive series of workshops on the Pyramid Model framework and associated practices, (2) implementation guides, data tools and materials to support practice implementation in classrooms, and (3) coaching sessions with preschool teachers in their classrooms by trained Pyramid Model coaches. The dose and implementation of each coaching component were measured and quantified in an IES-funded Goal 2 study (Hemmeter et al., 2011). The Pyramid Observation Tool (TPOT; Hemmeter, Fox, & Snyder, 2008) is used to measure teachers' fidelity of implementation of practices after their exposure to the Teaching Pyramid professional

development. The Pyramid Model Consortium provides services and technical assistance to help states implement, expand, and sustain the use of the Pyramid Model.

### ***Minnesota's Experience Implementing the Pyramid Model***

Minnesota has been implementing the Pyramid Model in a small number of programs since it was selected as one of the first Technical Assistance Center for Social Emotional Intervention (TACSEI) sites in 2009. With assistance from TACSEI and the State Implementation and Scaling up of Evidence Based Practices (SISEP), MDE began implementing the Pyramid Model using Active Implementation Frameworks (Metz & Bartley, 2012) in three sites. Recognizing that an evidence-based practice is only as effective as its implementation, MDE partnered with SISEP to support the Pyramid Model and now is implementing it within 50 school partnership sites out of a total of 339 districts across the state. MDE estimates that around 100 classrooms across the state are currently using the Pyramid Model as intended, which is only a small fraction of all the preschool classrooms across all the early learning sectors (i.e., school-based, child care, and Head Start sites and classrooms).

Minnesota has a long history of using implementation science to ensure sustainability of evidence-based programs and has adopted the SISEP philosophy that to create lasting systems change and positive outcomes for all students, states must use a top-down approach to support bottom-up change. MDE has successfully scaled the Pyramid Model in its preschool special education programs using this approach. This approach ensures that practices and programs are implemented with fidelity and that teachers and students are supported.

MDE has learned the following critical lessons regarding effective implementation:

- Active Implementation Frameworks, often referred to as “implementation science,” are essential to program-wide success. The frameworks include implementation stages, implementation drivers, implementation teams, and improvement cycles.
- The exploration stage of implementation cannot be overlooked. Only after thorough exploration may a program apply to participate. Not all programs that invest time in exploration choose to apply to implement. Those that do apply are likely to succeed.
- Coaching is critical to teachers’ reaching and maintaining practice fidelity. The implementation structure requires programs to identify their “internal coach.” The designated internal coach is supported by an external coach provided through the state system.

The state has seen programmatic changes that demonstrate higher outcomes for children ages 3–5 years with disabilities served in preschool programs. Exhibit 5 shows the combined performance in federal fiscal year 2014 of 386 children who were enrolled in and exited from eight programs serving children receiving early childhood special education that have been implementing the Pyramid Model for 3 years. Children with disabilities enrolled in Pyramid Model program sites were significantly more likely to exit demonstrating age-expected skills than their peers with disabilities statewide. There is every reason to believe that implementation of the Pyramid Model will result in gains for typically developing children as well, but the state does not yet have any data on this population.

**Exhibit 5. Percentage of children with disabilities in Pyramid Model programs with age-expected positive outcomes**

<b>Child outcome</b>	<b>Children in Pyramid sites</b>	<b>Children in other Minnesota sites</b>
Positive social emotional skills, including social relationships	65.0	55.3
Acquisition and use of knowledge and skill	64.0	55.0
Use of appropriate behavior to meet needs	71.0	64.3

Note: These are the three child outcomes that states report to OSEP as part of their required annual reports under the Individuals with Disabilities Education Act (IDEA).

Because the funds that support Minnesota's implementation of the Pyramid Model are provided through Part B, Section 619 of the Individuals with Disabilities Education Act and these funds cannot be used to support the general population, MDE is unable to scale the use of the model across other types of preschool programs such as VPK sites, Head Start programs, or community-based child care programs. The PFS model is a potential funding structure that Minnesota could use to scale up and sustain the use of the Pyramid Model across VPK sites.

**Goals, Objectives, and Outcomes**

The goal of the VPK program enhanced with the Pyramid Model (E-VPK) will be to improve outcomes for all children across all domains, including positive social and emotional development through increasing supports for teachers. The objectives of the program will be (1) to use an evidence-based curriculum to improve achievement of VPK participants in pre-academic domains and (2) to faithfully implement the Pyramid Model to support social and emotional learning. The outcome expected as a result of achieving these objectives is improved achievement in all domains over the course of the program year, in kindergarten, and in early elementary school compared with children in non-enhanced VPK programs. These outcomes are expected for all children in the VPK program, with and without disabilities.

The logic model presents a preliminary conceptualization of how E-VPK will improve student outcomes (Exhibit 6). A logic model is a graphical representation of the underlying logic in a proposed intervention and provides a blueprint for the types of data to be collected in an evaluation. Each component of a logic model is essential in that if the model is articulated correctly it clearly shows how one set of activities or outcomes leads to the next set of outcomes. The E-VPK logic model—including the short-, medium and long-term outcomes—will be refined through stakeholder input to be collected as part of the proposed project. The revised logic model will form the basis for the evaluation design that will be part of the PFS feasibility study report.

***Inputs and Activities***

The inputs for the logic model are the activities that support the program-wide installation of the Pyramid Model in each of the selected VPK sites. As shown in the logic model, none of the short- or long-term outcomes are predicted to occur without full implementation of this set of activities.

The critical inputs for the Pyramid Model are training and coaching. Training will be provided to the three groups who are key to implementation of the model: coaches; local

administrators; and teachers. Using already developed professional development materials and processes, the Pyramid Consortium will oversee the training of all three groups. Once sites are selected to participate in E-VPK, site staff will be trained in the use of the evidence based practices associated with the Pyramid Model. MDE staff will work with site administrators and the Pyramid Model Consortium to determine the appropriate number of coaches needed to implement the Pyramid Model in each site, identify these coaches, and ensure they are trained. In addition to training the three groups, another essential input is that sufficient coaching will be provided to teachers to augment the initial training and solidify their use of the practices. One last input is the extremely valuable set of materials that have been developed for teachers and administrators to support implementation.

### ***Outputs***

The implementation of the Pyramid Model involves the formation of Local Leadership Teams. These teams include the local site administrators who received training in the model. As a direct result of the provision of training and coaching, we anticipate that the appropriate number of coaches trained in the Pyramid Model will be available to the E-VPK sites, that E-VPK teachers will be knowledgeable about and competent to implement the model, and E-VPK administrators will be knowledgeable about the Pyramid Model and how to support teachers in its implementation in the classroom.

### ***Short-Term Outcomes***

Short-term outcomes are the outcomes that will occur closest in time to the provision of the inputs and the occurrence of the outputs. For E-VPK, these are the outcomes that address teacher and other staff behaviors during the preschool year. Based on the receipt of training and coaching, it is predicted that teachers will implement the Model's evidence-based practices with fidelity. A second short-term outcome is that children will receive the level of intervention appropriate to their needs. As noted above, the Pyramid model is a multi-tiered intervention. This means that those children who have a need for more intervention than available to all children in the classroom will be identified and provided with the level of intervention appropriate to their needs. This could include providing special education services for children determined to be eligible. Because teachers will be more skilled at addressing social-emotional learning and behavioral challenges and children will be receiving the intensity of intervention appropriate to their needs (and based on other research on Pyramid Model implementation), it is predicted that the overall quality of the preschool program will improve. E-VPK teachers will have the skills to structure their classroom environment better and will have more time for instructional activities because they will spend less time addressing challenging behavior, and when they do need to address challenging behavior, they will use strategies that are more effective and efficient consequently freeing up their time for instructional activities.

### ***Intermediate Outcomes***

The intermediate outcomes refer to changes in child behavior during the preschool year. As a result of teacher use of the Pyramid Model practices and improved overall classroom quality, we expect that the children in the E-VPK classrooms will achieve more than their peers in VPK classrooms in multiple domains. Relative to children in VPK, children who attend E-VPK will have improved achievement in both the academic and social-emotional domains as reflected in higher assessment scores in these domains at exit from preschool, including higher change scores from entry to exit. Although we would predict few suspensions and expulsions in all of the VPK

classes, we would expect even fewer in those implementing the Pyramid Model because of teachers' ability to implement evidence-based practices to address challenging behavior. Similarly, we predict the E-VPK classes will have fewer Behavior Incident Reports. Behavior Incident Reporting is state legislatively mandated statewide collection of information and data on various forms of restraint, time-out methods, seclusion and punitive consequences used by providers in Minnesota. Finally, the logic model predicts less chronic absenteeism because the Pyramid Model includes an emphasis on connecting with families and helping families use the Model's practices at home, thus improving family engagement and families' commitment to making sure their children attend program.

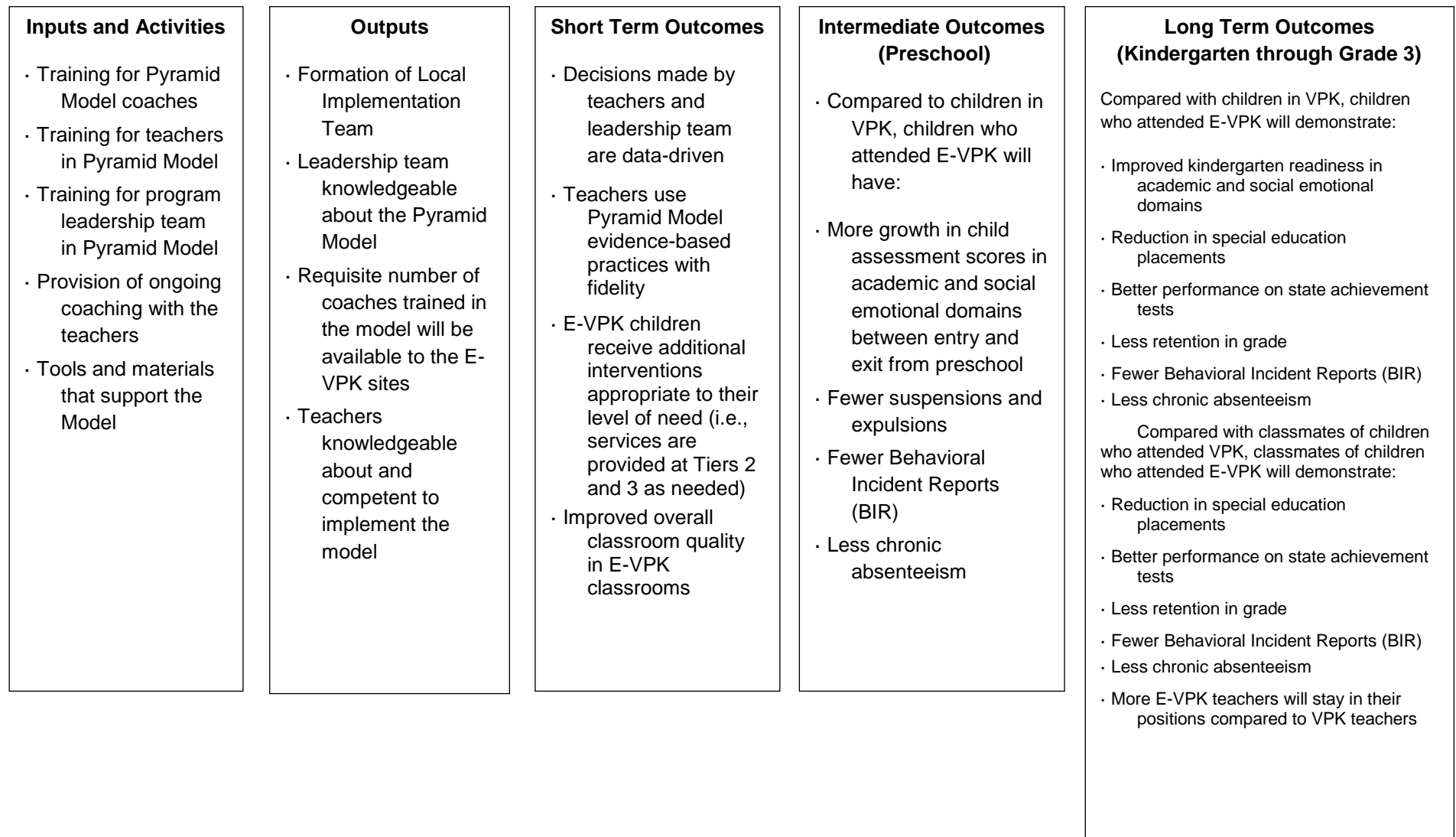
### ***Long Term Outcomes***

The long term outcomes refer to outcomes that occur after the preschool year, outcomes in kindergarten and beyond. The draft E-VPK logic model shows that differences are predicted to be sustained beyond the preschool year. Based on research on the effects of the Pyramid Model and other research on high-quality learning environments for young children, MDE expects to see numerous long term benefits of participation in the E-VPK program. We expect improved kindergarten readiness in academic and social emotional domains at entry to kindergarten because the children's gains will be carried through the few months after the end of preschool. A second predicted outcome is reduction in special education placements in elementary school for E-VPK participants. This reduction will occur because the preschool interventions will provide most children with a sufficiently solid social and emotional foundation to allow them to demonstrate appropriate behaviors through subsequent years. The logic model also predicts better performance on state-reported reading tests at grades 1, 2, and 3 for E-VPK participants because these children are expected to maintain their improved academic and developmental trajectories. For the same reason, the logic model predicts less retention in grade at grades 1, 2, and 3 and fewer Behavioral Incident Reports. Less chronic absenteeism is predicted based on continued parent engagement and capacity to address the child's behavior.

A second category of outcomes are predicted for the elementary school peers of the children who attended E-VPK (other children in their elementary classrooms). These outcomes are based on the literature that shows the negative impacts on peers of children with behavior problems. To the extent the E-VPK improves the social-emotional learning and reduces challenging behaviors of participants in both preschool and early elementary school, it is reasonable to predict that their classmates also will experience benefits. We predict a similar set of long term outcomes for the future classmates of the E-VPK children. Relative to peers of children who attended VPK, peers of children who attended E-VPK will demonstrate: reduction in special education placements; better performance on state achievement tests at grades 1, 2, and 3; less retention in grade at grades 1, 2, and 3; fewer Behavioral Incident Reports; and less chronic absenteeism.

Finally, the logic model shows higher teacher retention is predicted for E-VPK teachers compared to VPK teachers. Based on reports for sites implementing the Pyramid Model, we expect that being better able to address challenging behavior improves E-VPK teachers' level of job satisfaction leading them to stay in their positions longer than teachers in other VPK sites.



**Exhibit 6. Preliminary Logic Model for the VPK Program Enhanced with the Pyramid Model**

## **Meeting the Needs of the Target Population**

Minnesota has one of the largest achievement gaps in the United States and continues to see disparities in reading and math proficiency (Matos, 2016; Minnesota Education Equity Partnership, 2016). This trend is also illustrated in the early years with the 2015 Kindergarten Entry Profile, Minnesota's kindergarten entry assessment, which found that approximately 44% of children eligible for free and reduced-price lunch are not meeting age expectations in the Social Emotional Domain when they enter kindergarten. Expanding access to high-quality early learning opportunities via VPK is a step in the right direction, but to ensure the maximum return on public investments, evidence-based practices need to be implemented consistently within communities. Pyramid Model implementation in inclusive early childhood settings has been a success in approximately 100 classrooms across the state in many of the same communities that are implementing VPK.

## **Pay for Success as a Financing Strategy**

While the allocation of \$26 million shows promise for giving at-risk children access to high-quality pre-K experiences, the funds alone are not enough to guarantee successful outcomes for children participating in VPK. Ongoing training and professional development are crucial to preparing a workforce that can maintain program quality standards. PFS as a strategy in Minnesota will incentivize VPK programs to implement professional development in the evidence-based practices that have been shown to improve outcomes for Minnesota's youngest learners. As a result of implementing the Pyramid Model in inclusive partner sites statewide, MDE has administrative and evaluation records that will prove instrumental in assessing the feasibility of scaling up the Pyramid Model to VPK sites statewide. Intermediaries and funders will have the data they need to be confident that their funding is being used for implementation of an evidence-based model that leads to demonstrable, measurable positive outcomes for children. Moreover, Minnesota's history of public/private partnerships and joint funding for quality early childhood has laid the foundation for the commitment needed to accomplish PFS as a payment strategy.

## **C. Plan for Preschool PFS Partnership**

Partnerships are essential for the successful implementation of a PFS project. Members of a PFS partnership typically include one or more outcomes payors, service providers who deliver the intervention intended to achieve the outcomes, investors who cover the up-front cost of implementing the intervention, and an independent evaluator who determines whether the intended outcomes were achieved. PFS projects also may include an intermediary who facilitates and manages the contracting process and project. A well-functioning partnership is also important to the conduct of the feasibility study that is the subject of this proposal. Part of the work of the feasibility stage is to identify potential partners for the transaction structuring and agreement implementation stages of the PFS project. In this section, we describe the partnership that will be conducting the feasibility study along with the roles and responsibilities and the plan to identify the partnership for the implementation of the PFS project if it is found to be feasible.

## **Partnership for the Feasibility Pilot Study**

MDE will lead the partnership for the feasibility study. It will provide oversight for all project activities and manage the grant. MDE will work in close collaboration with SRI

International, which will support or conduct several of the PFS feasibility study tasks. Other members of the partnership will be the Pyramid Model Consortium and a consultant hired to carry out the cost-benefit analysis. The Pyramid Model Consortium will summarize the literature on the effectiveness of the model, provide input on possible outcomes measures, and support the cost analysis with detailed information on what is required to implement the model.

MDE has a history of undertaking successful innovative approaches to improving its early childhood programs and has collaborated with SRI and the Pyramid Consortium on some of them. SRI, an independent nonprofit research institute, has extensive experience evaluating small- and large-scale early childhood projects in a number of states and nationally. Furthermore, it is a leader in evaluating and consulting on PFS early childhood projects. SRI is currently the independent evaluator of the PFS-funded Chicago Child-Parent Center (CPC) project, one of only two PFS-funded projects in the area of early childhood. Significantly for this project, SRI has been working with the state of Minnesota for nearly 20 years on a variety of early childhood issues; for example, SRI is working with MDE on the measurement of outcomes for young children with disabilities and conducting early childhood evaluations with a variety of entities—MDE, the Department of Human Services, Minnesota’s business leaders as part of the Minnesota Early Learning Foundation, and The McKnight Foundation. In addition, key staff from SRI, Megan Cox, worked at MDE and the University of Minnesota on early childhood projects over the past six years (see Section E).

MDE also has a long-standing relationship with the Pyramid Model Consortium (<http://www.pyramidmodel.org/>), developers of the Pyramid Model. MDE and some local programs serving preschool children with disabilities have been receiving ongoing technical assistance (TA) on the implementation of the Pyramid Model from its developers. This relationship began in 2009 through TACSEI. Minnesota continues to receive TA on implementing this model and serving this population. This history of collaboration has provided MDE with a deep familiarity with the model and what is required to implement it, as well as an extremely strong working relationship with the members of the Pyramid Model Consortium.

## Partnership for the Implementation of PFS

One of the activities of the proposed project will be to identify and confirm the interest of the members of the partnership required to carry out the planned PFS project. One aspect of the determining feasibility is determining whether the required partners have the capability and are interested in pursuing this funding strategy. Below, we describe the roles of each of the PFS partners—service providers, an intermediary, payors, and an independent evaluator—and the plan for identifying the entities that will ultimately fill these roles.

**Service providers.** In PFS projects, service providers are responsible for delivering interventions that achieve concrete, measurable outcomes for specific people or communities. In this application of PFS, service providers have already been identified; they are the school districts and charter schools implementing VPK who will also be recruited to implement the Pyramid Model. MDE has a strong record of working closely with local school personnel as partners in the implementation of the Pyramid Model. The model has a shared governance structure of state and local leadership teams consisting of district administrators, teachers, coaches, university partners, and state staff. This relationship of shared responsibility will expand throughout the PFS feasibility study as we explore the possibility of using the Pyramid Model in VPK sites.

One of the tasks to be conducted as part of the feasibility study, which is described in more detail in the work plan in Section D, will be to reach out to the VPK site administrators and teachers to inform them of this exciting opportunity to use PFS to support professional development and collect information about their interest in and capability for pursuing it. Given the excitement and widespread acceptance the Pyramid Model has already generated in the state, MDE does not anticipate any difficulties finding sites interested in participating. A possible barrier might be the capacity of some of the VPK sites to take on the substantial commitment that successful model implementation requires. Both interest and capacity will be assessed as part of the feasibility study.

**Intermediary.** In a PFS project, an intermediary, sometimes known as a project manager, has an oversight role to will conduct, facilitate, and advise in the overall PFS project implementation. The intermediary can sometimes help set the terms of the PFS contract and may be connected to the community being served. Structuring a PFS contract involves setting benchmarks for success on outcomes that are verifiable and measureable and making sure that all partners (e.g., investors, payors, service providers) agree to the terms, with the intermediary being responsible for ensuring the payments are made.

If the proposed plan involves the reduction of special education placements as a potential outcome payment (and it is likely this one will), the intermediary must help ensure that the determination of a child's eligibility for special education is completely separated from the financial structure of the project.

The intermediary also may play a role in facilitating regular communication among the PFS partners during PFS implementation, in convening stakeholders for regular communication about the progress of the PFS project as well as monitoring the progress of the implementation of the independent evaluation.

Potential candidates for intermediary we plan to explore are organizations like The McKnight Foundation, United Way of Minnesota, and Third Sector Capital Partners that have been involved in PFS work. During the PFS feasibility study, SRI will support MDE in developing a plan for selecting an intermediary that has the necessary project management expertise and knowledge of Minnesota's early learning community. We will explore the use of the Rapid-Suitability Questionnaires developed by the Non-Profit Finance Fund and McKinsey & Company (<http://www.payforsuccess.org/provider-toolkit/rapid-suitability-questionnaires>, 2016) to examine the suitability of possible intermediaries. The Rapid Suitability Questionnaires were developed to enable those in the initial phases of considering a PFS to evaluate potential partners. The questionnaire for the intermediary examines such issues as "Has the organization demonstrated an ability to manage to outcomes?" and "Does the organization have a demonstrated track record in raising capital for new ventures?"

**Investors.** Private investors, such as foundations, banks, and businesses, supply initial capital for the entity providing preventive services to an at-risk population. Investors are repaid only if the services they fund help the target population meet agreed-on benchmarks for success on particular outcomes. These investors can be characterized as impact seeking rather than return seeking and often represent philanthropic branches of private organizations ([https://ssir.org/up\\_for\\_debate/article/the\\_payoff\\_of\\_pay\\_for\\_success](https://ssir.org/up_for_debate/article/the_payoff_of_pay_for_success) ).

Both MDE and SRI have a long history of working together with local and national business communities on projects that seek to make positive impacts on children and families such as the

United Way and Minneapolis Federal Reserve, who may be potential investors for PFS. In addition, Minnesota has a number of other potential investors such as Target, Best Buy, Allied Health, and Cargill, which have a track record of supporting initiatives to improve the lives of the citizens of the state. SRI also will share what it has learned as the independent evaluator of the CPC Social Impact Bond study about other PFS funders, including Goldman Sachs (funder of Utah High Quality Preschool and Rikers Island Incarceration Reduction). If an intermediary is identified as part of the feasibility phase, the intermediary also will work to identify potential investors. Initial overtures will be made to potential investors to identify those that have interest in generating social and financial returns on their investments through this innovative funding approach.

**Payors.** Government payors are responsible for reimbursing investors, often with interest, if the preventive intervention the investors have funded meet certain benchmarks for success. Otherwise, the government payors do not have to pay for services. In many PFS projects, government payors reimburse investors from the savings they have realized for specific outcomes influenced by the intervention.

MDE is one possible government payor in this project, as the project's preliminary outcomes of interest are related to savings that will be realized in the education sector (Exhibit 6). An important step in the feasibility study is identifying cashable outcomes, estimating cost savings associated with those outcomes, and determining which public agency realizes the savings. One consideration in identifying the payor for this project is whether the state agency or the local school districts should serve as the payor.

**Independent evaluator.** In PFS projects, the independent evaluator is responsible for the rigorous measurement of outcomes to examine whether providers achieve impact. A high-quality independent evaluator should be experienced in carrying out rigorous evaluation design and methodologies (such as those identified by the What Works Clearinghouse). Examples include randomized controlled trials, regression discontinuity, and other quasi-experimental designs (e.g., propensity score matching).

SRI has a strong background in the evaluation of large- and small-scale intervention studies. SRI will work with MDE to design a rigorous evaluation that would be implemented by an independent evaluator during PFS project. MDE will contract for the services of an independent evaluator only if the decision is made to go forward with the PFS project.

## D. Work Plan

As described, MDE will be supported by SRI International in conducting the PFS feasibility study tasks. MDE also will use the services of the Pyramid Model Consortium and contract with a consultant to carry out the cost benefit portion of the PFS feasibility study. In the work plan detailed here, we specify 14 tasks that will be completed during the 18-month grant period and the responsible parties for each task. Most of the tasks will result in written notes, minutes, memos, and reports that will be stored on MDE's SharePoint site to facilitate sharing across organizations and real-time access to all project materials. The schedule for the project work plan is in Exhibit 7 at the end of this section.

Our team will accomplish the study objectives on time and within budget because the partners have extensive experience in early childhood research as well as a long history of working together. SRI will be the designated lead for implementing the majority of the PFS

feasibility study tasks because of its expertise in leading PFS studies and managing complex early childhood projects, including several in Minnesota (described in Section E). This arrangement will enable MDE to concentrate on the important role of state leadership for the grant and on working with key stakeholders throughout the PFS feasibility study. By focusing on building the necessary relationships for the future PFS partnership in this stage of the work, MDE will increase the likelihood that the PFS will be a viable strategy for the state to pursue.

### **Responsibilities, Timelines, and Milestones**

To compile the required information and to develop a final report on the feasibility of using PFS to expand the Pyramid Model throughout VPK sites in Minnesota, MDE and its partners propose to complete 14 tasks, as follows.

#### ***Task 1: Hold a Project Kickoff Meeting to Discuss Scope of Work***

MDE will initiate the work with a kickoff meeting with SRI and the Pyramid Model Consortium staff to discuss the scope of work, deliverables, and timeline described in this proposal. The purpose will be to review and make any adjustments to the work plan, timeline, and responsibilities for the PFS feasibility study; establish meeting schedules; and confirm other project management processes and responsibilities. Each task in the work plan will be reviewed along with start and end dates and which organization and who within the organization will be responsible for overseeing the task. Current Pyramid Model implementers will be identified and their possible contribution to the project discussed.

#### ***Task 2: Hold Weekly Meetings***

MDE will hold weekly teleconference meetings with SRI to review and discuss progress on each task, review memos or other documents that are being prepared, plan activities involving stakeholders and review their input on project tasks, identify challenges and solutions, and make any necessary adjustments to the scope of work or timeline. The SRI team will work with MDE to co-create agendas, and the SRI team will take notes and post the minutes to the MDE SharePoint site. As needed, others may be invited to attend these teleconferences (e.g., Pyramid Model Consortium staff, cost benefit consultant staff, selected stakeholders).

#### ***Task 3: Obtain IRB Approval and Execute Data Sharing Agreements***

Much of the data analysis to be conducted during the PFS feasibility study will draw on existing MDE data at both the child and program levels. The analyses of existing administrative data sets will be conducted principally by MDE and thus will not require Institutional Review Board (IRB) approval. It is likely that some new data will be collected from VPK sites and other stakeholders which will require IRB approval. Sharing of MDE administrative data with SRI also might require IRB approval. SRI and MDE will decide whether only one or both organizations will need to prepare IRB applications and will complete them accordingly (each organization has its own IRB). The IRB approval letter or letters will be saved on the MDE SharePoint site. We expect to complete this approval process by the end of month 3 of the grant.

#### ***Task 4: Develop and Implement a Stakeholder Engagement Plan***

For the purposes of this proposal, we are referring to the entities in a PFS project (payors, investors, etc.) as *Partners*. The exact set of entities that will fill these roles will not be identified

until after completion of the feasibility study. How the possible Partners will be engaged during the feasibility stage is addressed in Task 10.

We are using *stakeholders* to refer to groups with a vested interest in using PFS to fund enhanced VPK. These include such groups as school administrators and teachers at VPK sites, other leaders in those communities, state education leaders, special educators, business leaders in the communities, and parents of young children. We expect the complexity of structuring a PFS-financed early childhood enhancement in Minnesota to yield varying opinions about outcomes of interest, effective indicators, and financing. MDE is committed to engaging multiple groups of stakeholders throughout the conduct of the feasibility pilot study. The resulting study report will be enriched by the diversity of stakeholders' perspectives on the many decisions that need to be made. Engaging stakeholders in the design of a PFS project also increases the likelihood that the project ultimately will be well received across diverse groups in the event it can be implemented.

MDE has a long history of seeking and using stakeholder input. It seeks input from the public at various state meetings to plan for and receive feedback on new ideas and innovations. An example of how MDE gathers input occurred in 2016 when it collected public views on the viability and challenges of implementing a mixed-delivery VPK model. MDE staff along with external consultants hosted site meetings across Minnesota asking for input on specific questions facing VPK legislation. Representatives from the state's Early Learning Council also provided comments. Responses were recorded and analyzed to help MDE understand the public will as well as the successes and challenges of implementing mixed delivery in local settings. The process also provided an understanding of how to make implementation easier for districts and community providers.

Similarly, when exploring the feasibility of an early childhood comprehensive assessment system through Race to the Top – Early Learning Challenge, both formal and informal feedback groups were created to obtain reactions to priorities, implementation plans, and viability of tool use and recommendations on new areas to explore. The feedback was gathered via email or online survey and analyzed before MDE made decisions about the strategic direction of the system.

In keeping with this tradition, several mechanisms will be used to gather stakeholder input during the feasibility study. One mechanism will be the creation of a standing body of stakeholders, the Stakeholder Review Group, who will review study findings and make recommendations at regular junctures across the life of the project. We anticipate that this group will consist of 10-15 people and include representation from the VPK sites, sites currently implementing the Pyramid Model, the business community including possible investors, foundations, parents of young children including children with disabilities, child advocates, and higher education. With the support of SRI, MDE will identify individuals from these groups and reach out to them to determine their willingness to serve on the Stakeholder Review Group. The group will be asked to provide constructive criticism and reactions to the various memos and reports produced over the course of the project and described in the tasks below. This will include

- providing input on project tasks such as identifying and reviewing outcomes,
- reviewing plans for implementing the intervention and the evaluation design,

- reviewing the possible safeguards regarding the separation of determinations about special education from the financial structure of a PFS project (this will be in addition to feedback from the disability special-focus group described below),
- reporting on any issues with the data being collected in VPK sites, and
- assisting in identifying possible intermediary organizations.

The Stakeholder Review Group also will be asked to help MDE determine whether more broad-based input should be gathered as part of the feasibility study. For example, the group could advise on whether MDE should hold town hall meetings in some of the VPK sites or post information for public input on a website.

We anticipate convening the Stakeholder Review Group for face-to-face meetings every 4 months over the project. As needed, the group also will meet by teleconference at critical junctures between the face-to-face meetings.

In addition to the overall Stakeholder Review Group, we will form two special-focus stakeholder review groups: an investor group and a group representing children with disabilities. Six to eight potential investors will provide targeted feedback on the outcomes and other aspects of the project to assist MDE in selecting outcomes and in structuring the project in a way that is likely to result in support from investors. Members of this group will be selected by reaching out to MDE's contacts in the investor community and also asking them to nominate their peers. We will seek this group's input through one or two in-person meetings if possible or through group teleconferences or individual phone calls and written feedback.

The other special-focus stakeholder group will provide an in-depth review of the proposed plan to ensure that the rights of students with disabilities are protected in the event that reduction of special education is proposed as a PFS outcome. This group will consist of 10-12 people representing local special education directors, special education teachers, parents of children with disabilities, disability law experts, and disability advocates. MDE will work with the PACER Center of Bloomington, Minnesota, a nationally known organization supporting parents of children with disabilities, to identify individuals to serve on this group. The disability representatives on the Stakeholder Review Group will also be members of this special-focus group. The disability stakeholder group will be convened for one or two in-person meetings, and group teleconferences will be held as needed.

As part of the orientation for the members of each of the three stakeholder groups, MDE with support from SRI will supply background information about how PFS will provide a funding mechanism to support implementation of the Pyramid Model. It is imperative that the stakeholders have a solid understanding of how PFS works so they are able to make informed recommendations on the written products they will be reviewing and the many decisions on which their input will be requested.

In addition to seeking input from the three formal stakeholder groups, we will reach out to stakeholders in other ways. There will be points over the course of the feasibility study when more detailed information will be required from specific groups of stakeholders, most notably the local administrators and staff in the VPK sites and the administrators and staff involved in sites currently implementing the Pyramid Model. The procedures for reaching out to these stakeholders are described in Task 8. We also will be contacting the VPK administrators to determine their interest in participating in the PFS project (Task 10).



Finally, to promote transparency and to keep multiple groups informed of progress, SRI will create the content for a bimonthly email newsletter for MDE to send to anyone who is interested in following the work of the feasibility study. All members of the stakeholder groups and all local administrators of the VPK sites will be included on the email list. Others who are interested will be added at their request.

### ***Task 5: Assess Community Needs, Assets, and Capacity***

The initial exploration phase in a PFS feasibility study involves gathering information about the communities' needs, assets, and capacity to implement the intervention. Specifically for this project, the work will involve analyzing available demographic and outcomes data about the needs of the VPK communities and compiling information about their assets and capacity to implement the Pyramid Model.

Within 3 months of the contract award, SRI will work with MDE to develop the analytic questions to be addressed in the needs assessment and to identify the data sources to answer those questions. Possible data sources for this analysis include existing community needs assessments that have been conducted by Early Childhood Family Education, VPK site information from application documents, initial child assessment data, and other data collected in Minnesota's State Longitudinal Data System and its Early Childhood Longitudinal Data System. These data sources contain information about, for example, child and family risk factors and the number of young children who are unserved. A determination will be made about whether the data in these data sets are sufficient to portray the needs, assets, and capacity of each of the VPK sites or whether additional data might need to be collected through site surveys.

SRI will work with the MDE data analyst to compile, merge, and analyze existing MDE data and any new data to better understand the needs of 4-year-olds and their families and the assets in each of the VPK communities. To examine capacity, SRI will work with MDE and the Pyramid Model Consortium to document the assets of the sites currently implementing the model. As a result of implementing the Pyramid Model in the state, MDE has administrative and evaluation records that will be useful in assessing the feasibility of scaling up the Pyramid Model to VPK sites. This analysis will address the question of what site characteristics are needed to successfully implement the model. Using these data, SRI will compare the capacity of districts participating in VPK with that of the current Pyramid Model sites before implementation. This comparison will identify the number of VPK sites that have the capacity to implement the Pyramid Model. These analyses will provide a detailed picture of each of the VPK communities, enabling MDE to identify those with the greatest need for the enhancement as well as sufficient assets to have a reasonable probability of success in implementing the Pyramid Model.

SRI will draft a memo summarizing the findings of these analyses. The memo will

- outline the characteristics of the target population,
- describe current services provided in each of the VPK sites,
- present data on outcomes for the population of interest,
- identify currently unmet needs in the target population (e.g., a subgroup within the target population of children in each VPK site that needs intervention most or additional needs beyond access to high-quality early childhood programming that are not being met), and
- compare the assets of each site with the assets considered necessary for successful implementation.

This memo will be finalized after review by MDE and the Pyramid Model Consortium within 6 months of the contract award (Exhibit 7).

***Task 6: Define Program and Intervention***

As described, MDE proposes to expand the Pyramid Model as a quality enhancement to its VPK program. We are conceptualizing the Pyramid Model intervention as a quality enhancement to VPK programs in that it provides teachers with the professional development and coaching necessary to implement a set of evidence-based practices shown to promote positive child outcomes. MDE selected the Pyramid Model because we know it is an effective model that is consistent with the philosophy of the state in addressing the needs of all young children in developmentally appropriate ways in inclusive settings.

As part of the feasibility pilot study, the Pyramid Model Consortium will summarize literature on the efficacy of the model, with a particular emphasis on the outcomes most likely to be impacted through the model. The Pyramid Model Consortium will submit a report summarizing its findings from the literature review within the first 8 months of the grant. The SRI team will summarize the empirical literature on the efficacy of high-quality preschool programs on various short- and long-term outcomes in a report to be completed within the same time frame. Together, these reviews will be used in the final selection of the outcomes that are most likely to be influenced by the intervention.

***Task 7: Identify Outcomes for the Population Being Served***

Task 7 activities are aimed at identifying the proposed outcomes for a PFS study through an analysis of MDE data on the possible outcomes and through stakeholder input on the relative importance of each outcome. Upon completion of the needs assessment and literature reviews, the SRI team will conduct an outcomes analysis using guidance about PFS projects that has been developed by the Institute for Child Success and the Urban Institute (<http://pfs.instituteforchildsuccess.org/feasibility-study-templates/>). This guidance notes that a PFS outcome needs to meet four criteria:

- There must be sufficient evidence to persuade investors to invest.
- It must be truly an outcome.
- The outcome must occur in a time frame that investors will accept.
- There must be a reliable, feasible way to measure the outcome in the selected sites.

The purpose of this task is to identify a set of outcomes that met these criteria.

Data on outcomes in the MDE data sets used in the needs assessment (Task 5) will be reviewed for possible use in the PFS study. Outcomes will be categorized on the basis of the reliability of the data source (including quality and completeness of the data) and expected measurement challenges. Outcomes will also be categorized as either impact outcomes (e.g., societally important or cost-saving long-term outcomes that can attract investors) or intermediate outcomes (e.g., short- or medium-term outcomes that indicate that the intervention has changed the behavior or condition of its participants). Measures of all the outcomes shown in the preliminary logic model (Exhibit 6, Section B) are currently available in MDE data sets and thus all are potentially measurable outcomes for a PFS project. MDE and SRI will work with the Pyramid Model Consortium and the review of the literature to provide the best available information on the likely extent of impact for each of the possible outcomes. Finally, the

outcome analysis will identify whether any legal and regulatory challenges are associated with any of the outcomes.

Reduction in the need for special education services most likely will be included in the preliminary set of outcomes. If this is the case, MDE and SRI will develop a draft plan to ensure that the rights of students with disabilities are protected and that PFS programs do not unintentionally provide incentives to not provide special education services for those who need them.

MDE and SRI will prepare a memo describing the set of possible outcomes, any measurement challenges such as incompleteness or validity associated with the data on the outcomes, what is known about the extent of the effect the intervention is likely to have on each outcome, and any legal or regulatory challenges associated with any of the outcomes. The memo also will include the draft plan for protecting the rights of students with disabilities in the PFS project.

The outcomes memo will be shared with the Stakeholder Review Group for discussion and input. The stakeholders will be convened and led in a facilitated discussion to elicit their input on the relative value of each of the outcomes for inclusion in a PFS project. In addition, the input of the investor subgroup will be sought to determine which of the outcomes investors would be most likely to support in a PFS project. Also, the special education subgroup will be asked for input on the plan to protect the rights of students with disabilities to ensure that it adequately addresses their concerns. The plan will be revised as needed based on their concerns to ensure that the safeguards to be put in place are widely regarded as sufficient to protect the rights of students with disabilities. The outcome of the stakeholder input process will be a prioritized list of outcomes and a plan for protecting the rights of students with disabilities.

SRI will draft a summary of the outcome-identification process with recommendations for outcomes for MDE's review. The memo will be revised based on MDE's feedback. The preliminary logic model will be revised to reflect these final decisions about the identified long-term or impact outcomes. We anticipate completing this process in months 4-8 of the grant.

### ***Task 8: Identify Challenges or Barriers to Serving Target Population***

The purpose of Task 8 is to identify any challenges or barriers, including legal barriers, to enhancing a subset of VPK sites through the introduction of the Pyramid Model. If any such barriers are identified, possible solutions or alternative approaches will be developed.

MDE and SRI will develop interview protocols for examining implementation issues with the Pyramid Model. SRI will conduct these interviews with a sample of state leaders familiar with the Pyramid Model as well as program administrators and teachers in sites already implementing it to learn about implementation-facilitating factors and challenges in non-VPK sites using the model. Using what we learn from current implementers, we will develop another set of questions to interview a sample of VPK program directors and teachers. These interviews will begin with informing the interviewees about the model and gather their perceptions about possible issues such as the model's compatibility with their current program, their willingness to participate in implementing the model, and any implementation challenges they would anticipate. Some possible challenges of adding the Pyramid Model in the VPK sites might be including measurement of implementation fidelity, data collection processes, and tracking of child outcomes; implementing other initiatives in the same site; and planning for teacher turnover.

To identify legal challenges and barriers to implementing the Pyramid Model in a subset of the VPK sites, MDE and SRI will work with MDE policy and legal analysts in the Government Relations Division to review the education code (MN Statutes, Chapters 120–129C). This examination will identify any conflicts or barriers to implementing PFS, as well as any real or perceived challenges the state may face in brokering a PFS deal. Depending on the magnitude of any potential challenges or barriers identified through the interviews or the legal analysis, stakeholder input might be sought to discuss possible solutions and alternative approaches.

The interviews with the Pyramid Model and VPK sites and the legal analysis will be conducted in months 7–10 of the grant. SRI will write and review a memo presenting the identified challenges and barriers and possible solutions during month 8 of the grant.

### ***Task 9: Conduct Cost-Benefit Analysis***

A critical task in a PFS feasibility study is to analyze the financial value associated with possible outcomes and determine the economic benefits associated with the outcomes. Part of the analysis is to determine the cost of the proposed intervention as well as the cost savings expected from achieving the outcomes. The time frame for achieving different outcomes also are considered because they affect the possible repayment schedules in a PFS project. The estimates of public values and cost savings will be determined through a cost-benefit study.

MDE, in partnership with SRI, will identify a consultant to conduct the cost-benefit analysis. SRI is familiar with the general principles of cost-benefit analysis, the empirical literature on estimated cost-benefits of high-quality early care and education programs (e.g., Bartik, Gormley, & Adelstein, 2012; Dubno, Dugger, & Smith, 2013; Dugger & Litan, 2012; Karoly, 2012; Karoly, Kilburn, & Cannon, 2005; Temple & Reynolds, 2007), and resources on setting and pricing outcomes for early childhood PFS projects (e.g., Rohacek & Isaacs, 2016). In addition, SRI has collaborated closely with cost-benefit analysis experts at the Harvard Kennedy School Social Impact Bonds (SIB) Lab, the RAND Corporation, and economic experts at universities (e.g., University of Minnesota, University of Utah) through its previous experience in PFS and other cost-estimate projects. SRI will use this experience to support MDE in developing a request for proposals for a consultant to conduct the cost-benefit analysis.

The Pyramid Model Consortium will play an important role in providing the cost-benefit consultant with information. From its experience working with Minnesota and other states, the consortium will be able to specify the amount and level of staff needed for professional development and other costs at both the state and local program levels to implement the Pyramid Model in VPK. Consortium personnel also will be able to specify what is required to sustain the model over time (e.g., ongoing coaching to maintain model fidelity, training new teachers and administrators due to staff turnover).

The cost analysis will draw on guidance developed by the Urban Institute on cost savings associated with the outcomes (e.g., kindergarten readiness, fewer grade retentions, reductions in special education placements, reductions in VPK teacher turnover) and estimates of repayments expected for the target populations to be served in the enhanced VPK sites (<https://pfssupport.urban.org/customer/en/portal/articles/2130873-how-are-potential-costs-and-savings-estimated-in-a-pfs-project>). Using this PFS guidance and other expertise about cost-benefit analysis, the consultant will prepare a report during months 4–10 of the grant summarizing the analysis methods and findings and review it with MDE and SRI.

***Task 10: Determine Willingness of Potential Partners to Implement a PFS Project***

The purpose of Task 10 is to determine the preliminary willingness and capacity of three of the PFS Partner groups to participate in the proposed PFS study. Those Partners are the service providers who are the VPK sites, the payor, and the investors. This task will entail a different set of activities for the different partner groups. Because neither the intermediary nor the evaluator will be identified during the feasibility phase, this task does not apply to them.

**VPK sites.** MDE will review the results of the capacity analyses (Task 5) to identify VPK sites considered to have the capacity for successful implementation of the Pyramid Model. MDE will contact local administrators in each of these sites to fully explain this opportunity and determine their interest in being part of it. The exact number of sites required for PFS to be considered feasible will be determined during the project and will depend in part on the evaluation design (i.e., whether a sample of sites need to serve as a comparison group).

**Payor.** MDE will decide whether the state wants to serve as the payor, share the role with local districts, or have local districts serve as the payor. If local districts will be serving as payor, MDE will work with the potential PFS VPK sites identified above to determine their willingness to serve as payor. If outcomes are identified during the PFS feasibility study that may be of interest to other potential payors, those entities also will be approached to determine their willingness to participate in a PFS project.

**Investors.** Drawing on its experience with PFS and investors, SRI will assist MDE in reaching out to potential investors. SRI will prepare a summary of the possible PFS project to use in these conversations. Possible investors in Minnesota include businesses such as Target, Best Buy, Allied Health, and Cargill, as well foundations such as The McKnight Foundation. The investors are not being recruited at this point. Rather, the objective is to determine whether at least some organizations might be interested in investing in this PFS effort. Through SRI's work on the early childhood SIB project in Chicago, we propose to have preliminary conversations with investors on that project to advise us on strategies for approaching potential PFS investors. We also will seek input on strategies from the investors described in the stakeholder engagement task (Task 4).

We expect these activities to occur in months 9–12 of the grant; on conclusion of these activities and within 13 months of award, SRI will submit a memo summarizing the willingness of the VPK sites, the payor(s), and possible investors to implement the PFS project.

***Task 11: Develop a Rigorous Evaluation Methodology for the Proposed PFS Project***

A rigorous, workable evaluation plan is a key component of a PFS project. The evaluation plan must have a rigorous design that ideally would meet What Works Clearinghouse standards such as a randomized controlled trial (RCT) or other quasi-experimental design with a control group and be feasible to implement. The evaluation plan should outline the target population and intervention, specify the needed outcome measures or data and measures of intervention fidelity and a data collection plan, include a plan for identifying an appropriate comparison group, and specify the data analysis methods to be used.

SRI will draw on its extensive experience conducting early childhood program evaluations—including its experience as the independent evaluator for the Chicago Child Parent Center Social

Impact Bond project, one of a small number of early childhood PFS projects currently under way in the United States—to develop a rigorous draft evaluation plan methodology for the proposed PFS project. From SRI’s experience, lessons learned from early PFS evaluation studies (e.g., Disley, Giacomantonio, Kruithof, & Sim, 2015) and current guidance for evaluating PFS projects (Munoz & Gordon, 2014), we know that some of the key decisions that need to be made in the evaluation design planning are

- selecting appropriate instruments to measure outcomes (e.g., instruments with high validity and reliability that can be implemented given budget constraints),
- identifying a benchmark for success and estimating the likelihood of success,
- determining whether success is absolute (each child is achieving benchmark) or relative (each child who would not otherwise have achieved benchmark is now achieving it), and
- identifying whether perverse incentives are possible and developing a plan for safeguards against them.

SRI will develop a written evaluation plan during months 12 –15 of the grant and submit an initial draft by the end of month 15; SRI will review the plan MDE and other stakeholders and review it as needed. The final evaluation plan will include a project logic model, specific set of research questions, proposed data and measures of outcomes, comparison sample recommendations, and data analysis options for evaluating the net benefits of the early childhood program. The recommendations will be consistent with the Corporation for National and Community Service Guidelines about PFS projects that suggest PFS evaluation designs have the following components (Munoz & Gordon, 2014):

- A thorough discussion of which children are in the treatment and control conditions A description of the impact evaluation design type (e.g., groups formed by matching)
- A summary of the impact evaluation (e.g., how the intervention is related to changes in its beneficiaries)
- A discussion of sampling, measures, and data collection
- Options for statistical analyses.

One of the possible outcome measures as shown in the draft preliminary logic model (Exhibit 6) is reduction in special education payments. If this outcome measure is included in the draft and final evaluation design, MDE will work closely with stakeholders to develop safeguards to ensure that children with disabilities are identified and receive the services they need (as described in Task 7).

### ***Task 12: Develop and Review Draft Outline for PFS Feasibility Report***

SRI will use the memos and reports developed in completing the previous tasks in the work plan to develop a draft outline for the PFS feasibility study report during month 16 of the grant. The outline will be reviewed with MDE and the Stakeholder Review Group and revised as needed.

### ***Task 13: Write Draft PFS Feasibility Report and Review with MDE and Stakeholders***

Using the approved outline developed in Task 12 and all information gathered throughout the project, including meeting notes from meetings with MDE and other stakeholders, SRI will write

and submit a draft PFS feasibility report during the last 2 months of the grant. Consistent with the requirements in the Application for New Grants, the report will address

- a description of the preschool program model,
- a description of how the intervention will improve student outcomes,
- a description of how the intervention is appropriate to and will successfully address the needs of the target population,
- identification of one or more measurable outcomes,
- processes to ensure that determination of special education eligibility is kept separate from the financial structure of the project,
- results of the cost-benefit analysis,
- identification of any statutory or legal barriers to implementing PFs and suggested approaches to overcoming them,
- identification of potential sources of outcomes payments.

If the study concludes that PFS is feasible, then the report also will identify partners for a preschool PFS partnership and describe the roles and responsibilities of each partner, a governance structure to implement the PFS partnership successfully, and the plan for a rigorous evaluation. It also will include a proposed plan to implement the preschool program with the target population, a preliminary financing strategy, and a proposed timeline and milestones in the transaction structuring.

If the study concludes that PFS is not feasible, the report will describe why. It also will include a discussion about potential alternatives to PFS that would contribute to the public good or describe steps to make a PFS approach feasible for the proposed enhanced VPK model.

***Task 14: Revise and Write Final PFS Feasibility Report***

In response to feedback from MDE and other stakeholders' review, SRI will revise and submit a final PFS feasibility report to MDE within 18 months of grant award.

**Exhibit 7. PFS Feasibility Study Workplan: Tasks, Milestones, and Schedule**

Tasks and Milestones	Year 1: Jan–Jun 2017						Year 2: Jul 2017–Jun 2018											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
<b>Project Management and Communication Tasks</b>																		
1. Hold project kickoff meeting																		
2. Hold weekly meetings																		
3. Obtain IRB approval, data sharing agreements																		
<b>Development of PFS Feasibility Study Tasks</b>																		
4. Develop and Implement a stakeholder engagement plan																		
5. Assess community needs, assets, and capacity																		
6. Define program and intervention																		
7. Identify outcomes for population being served																		
8. Identify challenges or barriers to serving target population																		
9. Conduct cost-benefit analysis																		
10. Determine willingness and capacity of partners to participate in a PFS project																		
11. Develop rigorous evaluation methodology for PFS project																		
<b>Report Writing Tasks</b>																		
12. Develop and review draft outline for PFS feasibility report																		
13. Write draft PFS feasibility report and review with MDE and stakeholders																		
14. Revise and write final PFS feasibility report																		

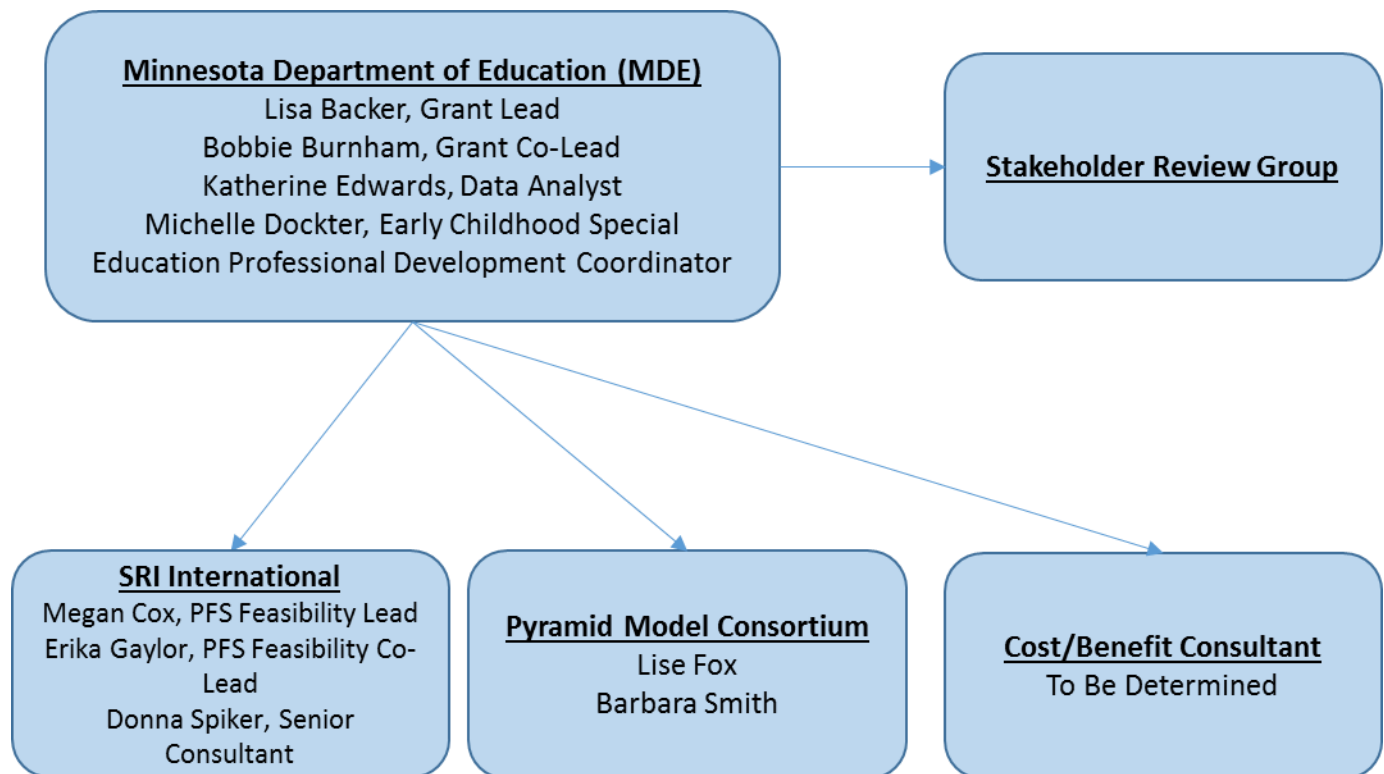


## PFS Feasibility Study Organizational Structure

Both MDE and SRI have long histories of successfully managing a wide range of similar projects on time and within budget. To manage this PFS feasibility study, we have assembled a highly skilled, knowledgeable, and experienced leadership team and organizational structure (Exhibit 8). Lisa Backer, Early Learning Supervisor of the Early Childhood Special Education Team at MDE, will serve as the lead for the PFS feasibility grant, assisted by Bobbie Burnham, Director of Early Learning Services at the MDE as the grant co-lead. They will oversee all aspects of the grant and work in collaboration with the SRI team who will carry out and support completion of the 14 tasks in the PFS feasibility study work plan. MDE also will identify a group of stakeholders representing a variety of groups who will provide input and review project progress as described in the stakeholder engagement plan (see Task 4).

On the SRI team, Megan Cox will lead the PFS feasibility study, with Erika Gaylor as the co-lead and Donna Spiker serving as a senior consultant. They will support MDE in carrying out several tasks and be responsible for several tasks as described in the work plan (see also Personnel Time Commitments). Staff from the Pyramid Model Consortium who have already been working with Minnesota will support selected tasks as described in the work plan. Upon award of the grant, MDE will issue contracts to SRI and to the Pyramid Model Consortium and release an RFP for a consultant to conduct the cost-benefit analysis. Additional information about personnel and organizational qualifications is in Sections E and F.

**Exhibit 8. PFS Feasibility Study Organizational Structure and Personnel**



## Personnel Time Commitments

The proposed personnel time commitments are adequate to accomplish the goals and objectives of the PFS feasibility study (Exhibit 9). Lisa Backer [REDACTED] from MDE will oversee the grant activities, working collaboratively with Megan Cox ([REDACTED]) from SRI to ensure that project tasks and deliverables are completed on schedule throughout the project. They and other staff, as needed, will meet weekly to review progress, address challenges, and make any needed adjustments in the work plan as needed (Task 2). Most tasks will involve both MDE and SRI resources. SRI will lead the tasks involving data collection, data analysis, evaluation design, and report writing. SRI will support MDE in activities such as forming and convening stakeholder groups, developing meeting agendas, and identifying potential investors. Lisa Backer of MDE will oversee grant budget, timelines, subcontracts, and all communication with the federal government.

Erika Gaylor at SRI ([REDACTED]) and Bobbie Burnham at MDE ([REDACTED]) will support the project leads in carrying out the work on the grant. Ms. Burnham will serve as Ms. Backer's supervisor in grant oversight and in review of projects on project activities. Dr. Gaylor will support oversight of SRI's activities and will participate in conceptualizing the project, review of data analyses, and writing of memos, as well as contribute to the evaluation plan and the final FFS feasibility report. Donna Spiker at SRI will provide her expertise to review and provide input on project activities including key project decisions or products including the plans for data analysis, the outcomes and logic model, the evaluation design, and the PFS feasibility study final report.

### Exhibit 9. Personnel Time Commitments for PFS Feasibility Study

Staff Member	Percentage of Time
<b>Minnesota Department of Education</b>	
Lisa Backer, Grant Lead	[REDACTED]
Bobbie Burnham, Grant Co-Lead	[REDACTED]
Katherine Edwards, Data Analyst	[REDACTED]
Michelle Dockter, Early Childhood Special Education Professional Development Coordinator	[REDACTED]
<b>SRI International</b>	
Megan Cox, PFS Feasibility Lead	[REDACTED]
Erika Gaylor, PFS Feasibility Co-Lead	[REDACTED]
Donna Spiker, Senior Consultant	[REDACTED]

## E. Project Leadership and Key Personnel

The proposed project team from MDE with support from SRI International has the content, technical, and management skills to successfully carry out the proposed PFS feasibility study. The team has substantive knowledge about early childhood, research and evaluation expertise, and a long track record of managing large, complex projects and grants on time and within budget. Much of this work has resulted in products useful for policymakers and practitioners and/or has contributed to new knowledge for the early childhood field. In addition, members of the proposed SRI team are currently working on an early childhood PFS project in Chicago as the independent evaluator, which gives them valuable firsthand experience with how PFS projects are designed, implemented, and function.

**Minnesota Department of Education Personnel**

Key personnel from MDE include Lisa Backer and Bobbie Burnham, who will serve as the Grant Lead and Grant Co-Lead (see Exhibit 8 in Section D). They will be supported by Katherine Edwards, Data Analyst, who will conduct data analysis of relevant MDE state data, and Michelle Dockter, Early Childhood Special Education Professional Development Coordinator, who will consult on tasks involving defining the essential requirements needed for implementation of the Pyramid Model and the cost parameters for an expansion plan to be included in the cost analysis.

**Lisa Backer**, ( ), the Early Learning Supervisor of the Early Childhood Special Education Team at MDE will serve as the Grant Lead to provide oversight of all aspects of the grant and project activities. Ms. Backer has served young children in Minnesota for more than 30 years as a teacher, local program administrator and, for the past 16 years, through her work with the Minnesota Department of Education. During her tenure she has provided leadership to several major policy and program initiatives include a major revision in the definition of Minnesota's eligible early learning population, the state system to collect and report data on outcomes achieved by children and families served and a local program self-review process. Her prior experiencing overseeing the implementation of the Pyramid Model and the development of a strong state infrastructure to scale the model across select early childhood special education programs and local inclusion partners makes her uniquely qualified to lead the activities of this project. Ms. Backer holds degrees in home economics education from Minnesota State University-Mankato and early childhood special education (ECSE) from St. Cloud State University. She completed doctoral coursework in Education Policy and Administration at the University of Minnesota. Her dissertation remains incomplete. In 2014, Ms. Backer's service to her state was acknowledged by the Minnesota Administrators for Special Education when she was selected to receive their Distinguished Service Award.

**Bobbie Burnham, M. A.**, ( ), the Director of Early Learning Services at MDE will assist Ms. Backer in oversight and management of the project. Ms. Burnham actively supports all division members to realize the mission of integrating prenatal to third-grade strategies into existing agency and division initiatives focused on growing leadership and system organization. The goal is a high-quality, aligned prenatal through third-grade system for Minnesota, so its youngest learners arrive at kindergarten ready for school. Ms. Burnham has been committed to the implementation of innovative learning strategies and evidence-based practices as a teacher, coach, school administrator, mentor, and professional development specialist. She started her career as a kindergarten teacher and worked with the Minnesota Center for Reading Research for eight years as a Reading First coordinator. At MDE, Bobbie has served as the Deputy Director for the Office of Early Learning and as an Early Learning program manager, coordinating birth through grade 12 literacy initiatives. She served as co-coordinator for Minnesota's Common Principles of Effective Practice initiative. Bobbie holds a Master's degree in Literacy Education, a Certificate in Professional Development, and a K-12 Reading Specialist Licensure from the University of Minnesota.

**Michelle Dockter** ( ), Professional Development Coordinator at MDE, will provide expertise on active implementation, assuring that all frameworks are considered within the PFS feasibility study and cost-benefit analysis. Michelle brings 35 years of experience as a local program ECSE program leader to her role with MDE where she oversees all aspects of the maturing early learning professional development system. She directs the work of 10 full time

staff of regional Professional Development Facilitators and serves as MDE's authorized representative for [REDACTED] million in fiscal agreements. Part of her work involves ensuring effective training for implementation of the Pyramid Model.

### **SRI International Personnel**

Key personnel from SRI include Megan Cox and Erika Gaylor, who will serve as the PFS Feasibility Study Lead and Co-Lead. They will be supported by Donna Spiker serving as a Senior Consultant.

**Megan E. Cox, Ph.D.** ([REDACTED]), Early Childhood Researcher at SRI, will serve as the PFS Feasibility Study Lead to coordinate with MDE, oversee completion of SRI tasks in the work plan, and monitor the SRI subcontract budget. Dr. Cox has 15 years of experience in project management, early childhood research and evaluation studies, and system implementation at the state and national levels. As a TA Specialist for the Center for IDEA Early Childhood Data Systems (DaSy) and Early Childhood Technical Assistance Center (ECTA), Dr. Cox works with states to evaluate their State Systemic Improvement Plans and examine the quality of their child outcome data. Before joining SRI, Dr. Cox worked on a variety of early childhood projects in Minnesota. She was the early learning assessment specialist and the comprehensive assessment system lead at MDE on its Race to the Top-Early Learning Challenge grant. In this role, she conceptualized, led feasibility studies of, and implemented the early childhood comprehensive assessment system. This system included implementation of cross-sector professional development including unified coaching models, program quality enhancements, and measureable outcomes to report to federal funders. In another project while she was at the University of Minnesota, Dr. Cox was Co-Principal Investigator on a Minnesota Centers of Excellence effort for MDE in which she led statewide efforts to coordinate cross-sector early childhood professional development. She also was project director on a project with the Department of Human Services to implement statewide observation of child care programs using the CLASS (a well-standardized quality rating tool). Dr. Cox has a Ph.D. in family studies from the University of Kentucky.

**Erika Gaylor, Ph.D.** ([REDACTED]), Early Childhood Program Manager, will serve as the PFS Feasibility Study Co-Lead, assisting Dr. Cox with completion of all tasks in the work plan. Dr. Gaylor has more than 15 years of experience in research and evaluation of early childhood preschool programs and interventions in both school- and community-based settings and with PFS work. Her expertise in conducting qualitative and quantitative research encompasses designing longitudinal and cross-sectional research projects. Dr. Gaylor has designed and led large multisite, multimethod evaluations, which entailed managing statewide data collection for measuring classroom and instructional quality, teacher experience and education, parent involvement and family engagement, and children's early literacy and math skills, as well as school readiness more broadly using both direct assessments and teacher-reported measures and district- or state-administered achievement tests. Currently, Dr. Gaylor is principal investigator for the Independent Evaluation of the Social Impact Bond Child-Parent Center (CPC) initiative. This evaluation is of an expansion of the CPC model in Chicago, and it will track the children's kindergarten readiness, third-grade literacy, and special education placement over 6 years. This social impact bond evaluation work builds on Dr. Gaylor's and Dr. Donna Spiker's evaluation of a Department of Education Investing in Innovation (i3) grant to expand the CPC model in four school districts in the Midwest. In addition to the i3 evaluation, Dr. Gaylor is co-leading the

comprehensive evaluation of the state of Virginia's preschool development grant from the Department of Education, which also examines the impact of preschool on short- and long-term academic achievement, executive functioning, and self-regulation skills. Previously she co-led a statewide evaluation of the Illinois preschool program Preschool For All and was co-principal investigator of the evaluation of the Saint Paul Early Childhood Scholarship Pilot Program, an innovative model to increase access to high-quality early learning programs for low-income children in Minnesota. She also is a reviewer for the What Works Clearinghouse, demonstrating her expertise in and knowledge about rigorous research and evaluation methodology. Dr. Gaylor has a Ph.D. in human development from the University of California, Davis.

**Donna Spiker, Ph.D.** (■■■■), Early Childhood Program Manager, will serve as PFS Feasibility Study Senior Consultant to consult on project activities and key decisions, including development of the final PFS feasibility report. Dr. Spiker is a nationally known developmental psychologist with extensive experience in designing and conducting rigorous research and evaluations on the effects of early childhood (birth to third-grade) programs and services designed to improve the development and school readiness of young children, particularly those at risk and with disabilities. Her expertise is in typical and atypical child development, early literacy, assessment, and effectiveness of early childhood interventions. Dr. Spiker has deep knowledge of early childhood systems, having led many state and national evaluations using rigorous randomized and quasi-experimental designs as well as formative evaluations. Dr. Spiker has a long history of leading early childhood projects in Minnesota, including leading the Evaluation of the MDE's Race to the Top-Early Learning Challenge. This project involves the evaluation of the use and impacts of early learning scholarships and Title I prekindergarten incentives to allow children from low-income families to attend high-quality preschool programs. Dr. Spiker also was the lead researcher for the Evaluation of the Minnesota Department of Human Services Child Care Assistance Program's School Readiness Connections (SRC) Project. She led SRI's data collection on the use of SRC funds and the impact on participating programs, children, and families. Additionally, Dr. Spiker served as co-principal investigator with Dr. Gaylor for the Early Childhood Development Scholarship Model Evaluation for the Minnesota Early Learning Foundation, developing and conducting a 4-year process and outcome evaluation of this early childhood scholarship model in Saint Paul. Currently, with Dr. Gaylor, she is senior technical consultant on two Department of Education i3 grant evaluations: a pre-K-third grade math professional development intervention project and the Independent Evaluation of the Social Impact Bond Child-Parent Center Midwest Expansion Project. Dr. Spiker is the senior evaluation consultant to the University of Minnesota on the CPC Midwest Expansion program. In addition, she is senior technical advisor for the Independent Evaluation of the Social Impact Bond CPC for School Readiness in Chicago. Dr. Spiker previously co-directed the Early Childhood Outcomes Center, which developed approaches to measure outcomes for programs for young children with disabilities to produce data for national, state, and local accountability systems. Dr. Spiker has a Ph.D. in child development with a minor in special education from the University of Minnesota.

### **Minnesota Department of Education Project Experience**

MDE has extensive experience administering, coordinating and supporting high-quality early intervention and education experiences for young children and is committed enhancing those services with evidence-based practices such as the Pyramid Model. Proposed grant personnel have a strong knowledge base and experience in supporting quality and early childhood

professional development, engaging stakeholders, data system development and management, data analysis, and working with policy makers, school districts, and local early childhood leaders across the state to implement innovative evidence-based strategies to improve outcomes for children. One major feature of MDE's work, which will be highly relevant to this grant, is its experience and commitment to using data to inform decisions.

Minnesota was awarded a federal **Race to the Top--Early Learning Challenge** grant in December 2011. Led by MDE, the [REDACTED] million award has improved early learning and development opportunities for Minnesota's young children. The grant addressed a critical need to provide more high-needs children from birth to age five with access to high-quality early care and education programs. Over the past five years, Minnesota implemented an ambitious plan for early learning reform focused on five main areas: increasing early childhood program quality and accountability; building a skilled early childhood workforce; increasing access to quality early childhood programs for children with high needs; measuring outcomes and progress; and aligning state infrastructure around these goals. Multiple distinct projects engaged diverse stakeholders and propelled the state to meet focus area goals. Through meaningful, cross-agency partnerships the state: 1) refined, expanded and evaluated a tiered quality rating and improvement system known as Parent Aware; 2) revised the state's early learning standards and aligned the new standards with those in the K-12 system; 3) increased access to high-quality preschool programs by providing scholarships to families to financially support enrollment into programs participating in Parent Aware and providing matching grants to incentivize the use of Title I for prekindergarten supports and services; 4) developed and implemented our *Workforce Knowledge and Competencies Framework* and increased the professional development opportunities aligned to the framework and accessible to early childhood educators; 5) revised our School Readiness Study in order to ensure the data provides a statewide picture of children's learning and development at kindergarten entrance, and provides schools and teachers with information to improve instruction and services in the early elementary years; and 6) established an early childhood longitudinal data system.

**Minnesota Education Data Systems for 21<sup>st</sup> Century Learning**, Minnesota's state longitudinal education data system (SLEDS) was awarded [REDACTED] million in 2010 with the objective to create a linkable interagency P-20, post-secondary and workforce data warehouse as well as create analytic portals for education research and evaluation. Since its inception, SLEDS has successfully brought together data from education and workforce to identify viable pathways for success in education and work, inform decisions on how to support education and workforce initiatives and gauge the effectiveness of current programs and designs to help students succeed. In addition to successfully linking P-20, post-secondary and workforce data, SLEDS worked to successfully create an improved data collection system for the state.

In 2015, MDE was awarded a [REDACTED] million IES Grant to engage community use of data by increasing the use of the P20W data system. The project, entitled **Engaging Communities Thru Data: Minnesota's P20W Linkages, Literacy & Use** has the broad goal of facilitating local use of the state's Early Childhood Longitudinal Data System and integrating additional data sources into the ECLDS to help local programs build capacity for data-based decision making through evaluation. There are multiple activities within this project including developing a resource toolkit that local programs can use to prepare themselves for a wide variety of measurement activities along a range of data use competence including data storage, security, addressing reliability and validity of data, local use for program improvement and assessing program

performance. The grant period will be used to develop and refine the kit, test it in a variety of jurisdictions, and establish a “home” for the package long term. This project will involve inputs from multiple areas of Early Learning Services to ensure integration with other messages and supports. This work includes integrating Help Me Grow and Head Start data in to the system and exploring data sources that contain parent data which may be possible to maximize what we know about children’s experiences by linking to other data sources at the parent level.

Following a national competition, Minnesota was selected in 2009 as one of two states to receive support from the federally-funded **Technical Assistance Center on Social Emotional Intervention (TACSEI)**. The broad goal of the state/TACSEI partnership was to build state capacity to foster professional development of the early care and education workforce to enhance knowledge and skills; support the implementation and sustainability of evidence-based practices; and increase the size of the workforce skilled in supporting the social-emotional development of young children (birth–5 years) in inclusive, natural environments. While the formal support from TACSEI was limited to two years, Minnesota has continued an informal relationship with the Pyramid Model Consortium as the state has successfully scaled the model in multiple local programs.

Minnesota’s experience with the Pyramid Model grew into a professional development system and framework through which the state has also implemented *Family-Guided, Routines-based Intervention* (FGBRI) based on the work of Juliann Woods and the *Classroom Engagement Model* (CEM) grounded in practices developed by Robin McWilliam. These three distinct initiatives (TACSEI, FGBRI, CEM) provide a relevant professional development option for all ECSE practitioners based on the context in which they do their work, whether as part of an inclusive classroom teaching team, supporting families through home-visiting, or working itinerantly to support children within disabilities across community-based early learning sectors.

Each initiative was strengthened immeasurably by technical assistance through a six-year relationship Karen Blasé and Melissa Van Dyke, national leaders in implementation science from the **National Implementation Research Network (NIRN)**. Through Minnesota’s work with NIRN, the state has created an effective State Leadership Team and requires participating programs to establish Local Leadership Teams. Each implementation driver, a component of the NIRN implementation framework, is continuously examined and improved. The data infrastructure to inform the use of rapid improvement cycles has been built. Great attention is paid to the stages of implementation and the identification of stage-matched activities for the state and local systems with special emphasis paid to the exploration stage which ensures that programs that apply to participate are likely to be successful. This work has expanded and strengthened Minnesota’s use of data in decision making at the state and local levels.

The revision of the **DEC Recommended Practices** (<http://www.dec-spед.org/dec-recommended-practices>) provided Minnesota yet another opportunity to strengthen its system of Professional Development. These practices are evidence-based “guidance to practitioners and families about the most effective ways to improve the learning outcomes and promote the development of young children, birth through age 5, who have or are at-risk for developmental delays or disabilities”. Minnesota successfully competed in 2014 to receive technical assistance from the Early Childhood Technical Assistance Center to embed the DEC Recommended Practices within the existing professional development initiatives, making them even stronger. Five sites were initially trained in the home-based practices and five in the classroom practices and are supported to continue to implement those practices. The system has now effectively



incorporated the practices into the Pyramid Model, FGRBI and CEM which will allow the state to scale these practices more quickly and efficiently across local program sites.

Through state legislation passed in 2015, **Early Learning Scholarships**, a program that MDE oversees, have become an important vehicle of financial support for families (<https://www.revisor.mn.gov/statutes/?id=124D.165>). The scholarships increase access to high-quality early childhood programs for three- and four-year-old children with the highest needs, in order to improve school readiness for all young children. Priority for scholarships is given based on family income, child poverty, and geographic region. Up to \$[REDACTED] per scholarship is awarded. The state estimates that approximately 8,000 scholarships per year will be awarded. This represents about 17 percent of the eligible children in Minnesota. There are two distinct pathways to an early learning scholarship: Pathway I scholarships are awarded to families who meet eligibility requirements and are paid to the high-quality early childhood program that the family chooses. Pathway I scholarships “follow the child” and are awarded to the family for up to 12 months. Pathway II scholarships are awarded to families through an eligible Four-Star Parent Aware Rated program. These include Head Start, school district prekindergarten and preschool programs, and child care programs. Programs participating as a Pathway II site receive scholarships funds for up to 12 months. If a child supported through a Pathway II scholarship leaves a program the funds remain with the program to support another child. Minnesota’s experience administering scholarships has required the state to build relevant capacity to make payments through an intermediary.

As can we seen in the above section describing MDE projects and shown in Exhibit 10, MDE has experience in increasing access to high quality programs and in **managing Federal grants** and has successfully implemented plans that ensure compliance with Federal guidelines. SRI projects described below also show success in managing Federal grants.

### **SRI International Project Experience**

SRI has strong subject matter expertise and experience in developing and evaluating early childhood programs, services, and systems to enhance the well-being of children, especially children in low-income and high-needs families and children with disabilities (<https://www.sri.com/research-development/early-childhoodeducation>). Key personnel have academic and practice knowledge about early childhood development and are trained in quantitative and qualitative research methods. This breadth of content and subject matter expertise as well as strong technical and management skills enable SRI to design and implement rigorous large-scale evaluations, often across multiple sites. SRI also has experience providing technical assistance (TA) to state and local staff. On both research and TA projects, SRI has been able to assemble and work collaboratively with stakeholder groups, technical experts, and advisory committees, which are a common feature of much of SRI’s work (see Exhibit 10 and appendix). As described here, SRI has worked with Minnesota on many early childhood projects.

Of its many relevant early childhood projects, SRI’s design and implementation of the independent evaluation of the **Social Impact Bond Child-Parent Center for School Readiness**, a PFS project that is funding expansion of the CPC model in Chicago Public Schools, is the most relevant to the proposed feasibility study. During the 2014–15 school year, a team of investors (Goldman Sachs Social Impact Fund, The Northern Trust, and the J.B. and M.K. Pritzker Family Foundation) began providing funding for preschool slots in Chicago Public Schools. The CPC expansion project anticipates serving four cohorts of children across eight sites in Chicago, with



between 2,400 and 2,800 children receiving a high-quality preschool experience. SRI was hired to conduct a rigorous quasi-experimental evaluation involving propensity score matching that is tracking children's kindergarten readiness, third-grade literacy, and special education placement over 6 years, with the first cohort reaching fourth grade in the final year of the evaluation.

SRI has been working with state agencies and others on early childhood evaluations and initiatives in Minnesota since 2003. Through this work, the proposed team has developed effective working relationships with MDE staff, local early childhood program directors, and the families they serve, as well as other stakeholders and early learning advocates across the state. SRI is currently completing a statewide evaluation of Minnesota's **Race to the Top-Early Learning Challenge (RTT-ELC) Funds to Promote Access to High-Quality Programs**, a Department of Education grant for scholarships to children from low-income families. SRI evaluated the effectiveness of the scholarships relative to increased access to high-quality early learning programs, family engagement in early learning programs, and children's outcomes and school readiness. This evaluation, like many others, included both quantitative and qualitative data collection and analysis. Similarly, SRI is completing an evaluation of the **Midwest Expansion of the Child-Parent Center Education Program** that included sites in Minnesota and Illinois. Working with the University of Minnesota, SRI collected and analyzed outcomes data for more than 2,000 children, their families, and their schools to understand the implementation of the CPC program, the gains in school readiness for participants, and the impact on parent involvement in school and early learning for participants. In the **evaluation of the Minnesota Early Learning Foundation's (MELF) Early Childhood Development Scholarship**, supported by Minnesota's business leaders, SRI designed and implemented a formative and summative evaluation of an early learning scholarship model. As part of the evaluation, SRI contracted with RAND to identify the costs associated with four different types of preschool programs, all of which received ratings of high quality in Parent Aware, the state's quality rating and improvement system: school-based preschool programs, community-based preschool centers, Head Start centers, and family child care programs. SRI also is conducting an evaluation of the **McKnight Foundation Pathways Initiative Program** that looks to integrate and enhance prekindergarten through third-grade literacy education in the Twin Cities. A multimethod approach is being used that involves case studies, teacher observations, and teacher surveys. Additional formative data come from formative and achievement assessments collected by the schools. SRI also has evaluated the **Child Care Assistance Program's (CCAP) School Readiness Connections** project for the state of Minnesota Department of Human Services. The CCAP provides financial subsidies to help low-income families pay for child care, and the evaluation examined the impacts of providing incentives for selected CCAP providers to partner with counties and parents to promote the skills and abilities that children served by CCAP need to succeed in school and to improve the quality of the child care. The evaluation included qualitative interviews and collection of child outcome data.

SRI has considerable experience providing consultation and TA on child outcomes data, state data systems, and data use. SRI has been working closely with MDE since 2003 through two technical assistance projects funded by the Office of Special Education Programs (OSEP). SRI's **DaSy Center** provides state agencies with TA and resources to assist with the development or enhancement of data systems for Part C early intervention and Part B preschool special education programs supported through the Individuals with Disabilities Education Act (IDEA). In work with Minnesota and other states, the DaSy Center leverages what is known and generates new ideas and products to help state agencies create and expand early childhood cross-agency and

longitudinal data systems that contain the Part C and Part B preschool data needed for reporting under IDEA.

Over a 10-year period (2003–2014), SRI provided national leadership on measuring the outcomes of programs serving young children with delays and disabilities through the **Early Childhood Outcomes (ECO) Center**, also funded by OSEP. The ECO Center provided state agencies, including MDE, with TA in developing high-quality child and family outcome measurement systems for programs serving infants, toddlers, and preschoolers with disabilities and their families.

SRI also has conducted evaluations of early childhood programs in other states. SRI is conducting a comprehensive evaluation of Virginia's federal preschool development grant (PDG), **Virginia Preschool Initiative Plus (VPI+)**. The evaluation will provide information to support and improve implementation of an expanded high-quality preschool program in 11 school districts across the state and includes a cost-effectiveness study. SRI designed and conducted the **Evaluation of Illinois Early Childhood Block Grant Program** that included collection and analysis of data for a statewide sample of children, families, and preschool programs, including kindergarten entry assessments of more than 600 children attending state preschool and interviews and surveys with program directors and teachers.

Finally, SRI has deep understanding of the established standards for rigorous research. In partnership with Mathematica Policy Research, SRI staff led research reviews and the development of practice guides for working with students with disabilities for the **What Works Clearinghouse (WWC)**. As part of this work, SRI developed a practice guide that presented recommendations for effectively addressing elementary school students' behavior issues and another on secondary school students' behavior issues. After earning certifications, SRI staff members also conducted reviews of research following WWC standards and served as content experts for topical reviews.

As these examples show, SRI has knowledge of and experience with PFS, expertise in early childhood development programs, early childhood state systems, research, and evaluation design and methodologies, as well as a long history of successful collaborative early childhood work with MDE and other early childhood stakeholders in Minnesota. A summary of these and other relevant SRI early childhood projects are contained in the appendix.

## Exhibit 10. Relevant Projects and Expertise of The Minnesota Department of Education and SRI International

Experience & Expertise/Name of Project	Content expertise						Technical expertise									
	At-risk children and families	Special education and children with disabilities	Social-emotional development and interventions	Child assessment	Early learning professional development	Cost-effectiveness and cost benefit studies	Designing and implementing rigorous evaluations	Collection and analysis of administrative/extent data	Multisite data collection	Quantitative methods and data analysis	Qualitative methods and data analysis	Literature review/scan	Stakeholder engagement	Work for federal agencies	Work with state agencies	Work with school districts and community-based preschool programs
Minnesota Department of Education																
Voluntary Prekindergarten Program	★	★	★	★	★			★	★				★		★	★
Race to the Top-Early Learning Challenge Grant	★	★		★	★		★	★	★				★		★	★
Minnesota Education Data Systems for 21 <sup>st</sup> Century Learning	★	★		★				★	★	★				★	★	
Engaging Communities Thru Data: Minnesota's P20W Linkages	★	★			★				★	★			★	★	★	★
Pyramid TACSEI and National Implementation Research Network	★	★	★	★	★				★				★		★	★
DEC Recommended Practices		★			★								★		★	★

Experience & Expertise/Name of Project	Content expertise						Technical expertise									
	At-risk children and families	Special education and children with disabilities	Social-emotional development and interventions	Child assessment	Early learning professional development	Cost-effectiveness and cost benefit studies	Designing and implementing rigorous evaluations	Collection and analysis of administrative/extent data	Multisite data collection	Quantitative methods and data analysis	Qualitative methods and data analysis	Literature review/scan	Stakeholder engagement	Work for federal agencies	Work with state agencies	Work with school districts and community-based preschool programs
Early Learning Scholarships	★			★		★	★		★	★	★		★		★	★
SRI International																
Independent Evaluation of the Social Impact Bond (SIB) Child-Parent Center (CPC) for School Readiness	★	★		★		★	★	★	★	★			★			★
Evaluation of Minnesota's Race to the Top-Early Learning Challenge (RTT-ELC)	★		★	★			★	★	★	★	★	★	★	★	★	★
Evaluation of the Midwest Expansion of the Child-Parent Center (CPC) Education Program	★	★		★			★	★	★	★				★	★	★
Early Development Scholarship Model Evaluation – Minnesota Early Learning Foundation (MELF)	★			★		★	★	★	★	★	★		★		★	★

Experience & Expertise/Name of Project	Content expertise						Technical expertise									
	At-risk children and families	Special education and children with disabilities	Social-emotional development and interventions	Child assessment	Early learning professional development	Cost-effectiveness and cost benefit studies	Designing and implementing rigorous evaluations	Collection and analysis of administrative/extent data	Multisite data collection	Quantitative methods and data analysis	Qualitative methods and data analysis	Literature review/scan	Stakeholder engagement	Work for federal agencies	Work with state agencies	Work with school districts and community-based preschool programs
Evaluation of The McKnight Foundation Pathways Initiative Program	★			★	★		★	★	★	★	★		★			★
Evaluation of the Minnesota Child Care Assistance Program School Readiness Connections (SCR) Project	★			★				★	★	★	★		★		★	★
Center for IDEA Early Childhood Data Systems (DaSy Center)	★	★		★										★	★	★
Early Childhood Outcomes (ECO) Center		★	★	★				★	★	★				★	★	
Virginia Preschool Initiative Plus (VPI+) Evaluation	★			★	★	★	★		★	★			★	★	★	★
Evaluation of Illinois Early Childhood Block Grant Program	★			★	★		★	★	★	★	★		★		★	★
What Works Clearinghouse Reviews			★									★		★		

## F. Resources & Budget

MDE and SRI have the organizational and corporate resources to complete the proposed work of this grant, which will culminate in the completion of a clear, well-conceptualized, and well-written final PFS feasibility study report by the end of month 18. MDE has developed a prudent budget that will support the project activities.

The Minnesota procurement statute allows state agencies to use a single-source acquisition process when after a search, “only one supplier is determined to be reasonably available for the required product, service, or construction item.” MDE will request a single-source contract with SRI given its unique experience with Pay for Success in early learning and expertise in evaluation and early learning outcome measures. If the single-source request is not approved, MDE will pursue a competitive RFP and seek a potential vendor with qualifications similar to SRI’s, with the expectation that SRI will submit a proposal.

MDE also plans to issue a single-source contract with the Pyramid Model Consortium, which is a 501(c)(3) nonprofit organization that was created to continue the Pyramid Model work after funding from the U.S. Department of Education for the **Technical Assistance Center on Social Emotional Intervention for Young Children (TACSEI)** and the **Center on the Social and Emotional Foundations for Early Learning (CSEFEL)** ended ([www.pyramidmodel.org](http://www.pyramidmodel.org)). The consortium provides services and technical assistance to help states implement, expand, and sustain the use of the Pyramid Model (<http://www.pyramidmodel.org/services.html>).

MDE will issue a competitive RFP to procure the services of a consultant to conduct the cost-benefit study for the PFS feasibility study.

### Adequacy of Budget

The total budget of [REDACTED] for the 18-month grant covers two periods that match Minnesota’s fiscal years, with Year 1 being January 1 to June 30, 2017 (6 months) and Year 2 July 1, 2017, to June 30, 2018 (12 months). The total amount for MDE includes salary and benefits support for Bobbie Burnham ([REDACTED]); a program accountant to support grant fiscal management ([REDACTED] contracts for SRI, the Pyramid Model Consortium ([REDACTED]), and the cost-benefit consultant ([REDACTED]); indirect charges at the rate of [REDACTED] on the first \$[REDACTED] for each contract in each fiscal year; and a small share of MDE rent prorated for each staff position. In-kind contributions from MDE will cover the salaries and benefits of the other staff: Lisa Backer ([REDACTED]) and Michelle Dockter ([REDACTED]). The total amount for SRI of \$[REDACTED] includes salary and benefits for Megan Cox ([REDACTED]), Erika Gaylor ([REDACTED]), and Donna Spiker ([REDACTED]); additional salary costs for other staff involved in analysis and reporting tasks; travel costs of [REDACTED] for trips by SRI key personnel to Minnesota to support the project work; other direct costs for communication and report production; and SRI indirect charges.

### MDE Resources

MDE is strongly committed to pursuing the work described in this application. MDE views PFS as a promising strategy to overcome the financial barrier that prevents the state from effectively scaling the Pyramid Model. MDE has also identified additional resources from throughout the agency to supplement the proposed budget and complete the proposed work. Most important, the team leading this work is committed to young children, with and without

disabilities, and believes in the value the Pyramid Model can add to a high-quality early learning program. The interests of young children and their families are at the center of the work.

Knowing that partnerships are essential to making a meaningful difference in the lives of young children, MDE has developed strong working relationships with other state agencies, members of the local business community, the University of Minnesota, national providers of technical assistance, stakeholders from the public and private sectors, service providers, advocates, school district leaders, and family members. Each of these relationships has contributed to strengthen our existing system to extend the reach of what has been developed to benefit more children and families.

MDE's agency infrastructure has the capacity to support grant activities as necessary. The contract specialists in the Division of Agency Finance and Operations will support the grant team with all procurement activities, assuring compliance with all applicable federal and state policies. Data analysts from Minnesota Information Technologies (MN-IT) will oversee needed data pulls and the analysis of data as needed. Because of team commitment to strengthening our system of professional development, especially aspects of the system impacting the implementation of the Pyramid Model, considerable data are becoming available on essential implementation frameworks that will support a meaningful cost-benefit analysis.

### **SRI International Resources**

The proposed SRI team for this grant is from the Center for Learning and Development in the Education Division of SRI International (<https://www.sri.com/about/organization/education>). SRI is one of the world's most innovative and respected not-for-profit research and consulting organizations. Founded in 1946 as the Stanford Research Institute, SRI is now an independent organization that conducts a variety of basic and applied research projects across a spectrum of education, health, engineering, biological, and information sciences. SRI's work with clients includes research design, strategic consulting on program development, evaluation, technical assistance, and policy analysis. SRI has headquarters in Menlo Park, California, and an office in the Washington, DC area (Arlington, Virginia).

The SRI team is cognizant of federal policies and regulation regarding human subjects and complies with all safeguards and protections of their rights and welfare, including state and local policies. SRI maintains a Federal Wide Assurance with the Office for Human Research Protections, and no SRI activity with human subjects may be conducted without prior approval of the IRB. The SRI IRB members meet regularly and can conduct a timely review of the study's requirements before its inception. Additionally, all the SRI research staff are well versed in data safeguards; proposed staff have completed required IRB training and can provide such certification as needed. Additionally, the SRI team follows the World Wide Web Consortium's Web Accessibility Initiative (W3 WAI) in preparing products—presentations, papers, webinars, and websites—that adhere to Section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 749d). SRI staff place a high value on the accessibility of the resources produced for federal, state, and private clients; proposed staff members have a long history of work on projects concerning children and youth with disabilities and are committed to support the full participation of individual with disabilities. On several projects, SRI and MDE have worked together to support 508 compliance of project reports and other materials for dissemination.

As a research organization, SRI recognizes the importance of providing high-quality products for clients and of anticipating and managing changes in schedules. SRI has proven management procedures to deliver products on time and within budget. To ensure projects are completed on time, SRI develops and follows a detailed work plan and timelines in conjunction with its clients. Project leaders and project coordinators closely monitor the performance of all staff against the task schedules and budgets. Several secure electronic project and task management systems are available for SRI project staff to use in managing large and complex projects. Control of labor and other expenditures is supported by SRI's Project Status Reporting system, which provides weekly itemized reports of labor hours by person plus other direct costs and automatic notifications as deliverables near their due date. Additionally, SRI maintains close working relationships with clients to tailor processes for reviewing and updating progress and timelines throughout the project.

### **G. Competitive Preference Priority**

As described in the application narrative, the evidence-based practices at the heart of our PFS feasibility study are those included in Pyramid Model for Supporting Social Emotional Competence in Infants and Young Children. The Pyramid Model is a well-researched and validated positive behavior and support framework for early educators to promote young children's social and emotional development as well as to address challenging behavior.

Implementation of the Pyramid Model in Minnesota includes the use of child assessment across developmental domains. This assessment serves to essential functions. First, assessment data is used by members of each child's instructional team to determine whether the activities and teaching within Tier 1 are sufficient to support each child's development or if the child needs small group or individualized support to grow and thrive. Assessment across domains is also used by implementing program and reported to MDE to measure the impact of local implementation and statewide efforts. These data are linked to K-12 assessment data and are increasingly being used to predict academic achievement.



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